

What is the Value of Social Determinants of Health in Dental Education?

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Introduction

Training the future dental workforce in understanding the impacts of the social determinants of health (SDOH) can begin to prepare oral health specialists to identify and address health disparities and to promote overall health equity. Oral health disparities, like all health disparities, are outcomes of upstream social factors, such as unfair differences in wealth and education, social status, and culture-related perspectives and conventions [1]. However, oral health disparities are not merely the differences in oral health status between the social classes, but are a recognition of power differentials related to factors such as race and ethnicity, socio-demographic disparities, and psychological factors that can shape the biology and behaviors related to oral disease development and progression [2]. These factors affect oral health through a complex framework at community and individual levels.

In its landmark report *Closing the Gap in a Generation: Health Equity Through Action on the Social Determinants of Health*, the Commission on Social Determinants of Health described social justice as “a matter of life and death” and that addressing inequities of SDOH is part of social justice [3]. Additionally, the World Health Organization (WHO) emphasized social and environmental influences that can cause inequities in access to, and utilization of, care that can affect health-related quality-of-life measures [4]. If not addressed at both the upstream and proximal levels, these factors can lead to health disparities and inequities in population health.

Dental workforce education—including the dentist, the dental hygienist, and dental allied professionals—is beginning to embrace these concepts, although the uptake is far from universal. Care providers in dentistry are critical members of the overall health care workforce and, like other health professions, should be

trained interprofessionally to recognize and address SDOH. In this way, the dental health professionals can better understand their unique, front-line opportunity for working with others in providing more holistic patient care. This can be accomplished by leveraging their one-on-one patient encounters to help identify at-risk patients. Once identified, these patients create an opening into the broader population health issues affecting their families and communities, and providers can act by using their status, in collaboration with community organizations, to improve individual well-being and the overall health of the affected community.

The first steps for dental health workforce education and training might be to consider an interprofessional approach to integrating SDOH into dental education and to begin shifting away from a biomedical-centric training model to one that incorporates a more holistic approach to addressing the fundamental needs of their patients.

Currently, how well does the dental curriculum embrace training dental students in SDOH?

A recent article examined the current pre-doctoral dental curriculum and found SDOH training was fragmented and isolated to courses such as dental public health, community engagement, and cultural competency [5]. Several dental schools are emphasizing the need to include SDOH training and provided examples of didactic and clinical courses, workshops, and other innovative methodologies used to train dental students in understanding health inequities and population diversity. However, the authors of this commentary could not find a single example of seamless inclusion of SDOH across the learning continuum within the pre-doctoral dental curriculum.

Understanding the Value of Social Determinants of Health

Does the dental community understand the value of SDOH in dental education?

The FDI World Dental Federation's (FDI's) definition of oral health, as proposed in 2016, emphasizes that oral health does not happen in isolation. FDI provided the following attributes:

Oral health is a fundamental component of health and physical and mental well-being. It exists along a continuum influenced by the values and attributes of individuals and communities. It reflects the physiological, social, and psychological attributes that are essential to the quality of life. Oral health is influenced by the individuals changing experiences, perceptions, expectations, and ability to adapt to circumstances [6].

This newly proposed definition suggests that the dental community is shifting to understand the value of SDOH in dental education and its effects on improving oral health.

The dental workforce community is realizing that the practice of dentistry is changing with an emphasis on prevention and is moving from fee-for-service to value-based care. Implementing value-based care in dentistry will require changes in clinician behavior that can result from an increased understanding of population health and a broadening recognition of linkages between systemic health and oral health [7]. Concurrent with this change are transformations in the U.S. population demographics showing increased diversity in all aspects, including race and ethnicity, social identity characteristics, and life circumstances. There is also a growing elderly population. Often, seniors present with more complex health conditions requiring a mix of treatments but varying abilities to navigate the often complex health care system. The dental community is starting to understand that serving older adults could mean a shift in the dynamics of dental practice. Cantor and Thorpe's suggestion to access data outside of traditional clinical findings could provide a broader perspective on the potential drivers of an elderly patient's health status and access to care and could possibly help identify approaches to improve the effectiveness of that care [8].

There is some consensus in the dental academic community that dental education needs to be transformed to follow a person-centered model in both didactic and clinical training so that dental students gain a better understanding of patients' personal and structural barriers to achieving and maintaining good oral health [9]. Such a change would, at an early stage, teach dental students to recognize that patients are not merely complications of physiological pathways but are human beings facing societal complexities that affect behaviors, perceptions, and expectations [10]. In the broader context, oral diseases are an outcome of this complex pathway. Following a person-centered model in dental education could benefit patients and dentists by equipping current and future dentists with the skills to competently offer person-centered care. Such care could incorporate patient advocacy so that changes in dental practice, payment systems, and new policies could benefit vulnerable members of society. Finally, the dental community's positive interactions with patients and caregivers could lead to higher professional satisfaction and potentially minimize worker burnout in dentistry [9].

Embracing Change

Is the dental community ready to embrace a change in dental education? How can educators make this change happen?

Incorporating learning on SDOH would be a major shift for dental education. Any change in the dental education environment would be an enormous undertaking, involving buy-in from academic dental institutions, faculty, and leadership. A first step to gaining buy-in would be to identify early adopters and champions who could be role models for considering how to bring SDOH into dental education. It will be important for these champions to open conversations about successes, challenges, and barriers to their efforts. Involving multiple stakeholders that include patients and students would likely build their case for shifting to a person-centered dental education. These discussions should be informed by evidence drawn from the few academic dental institutions actively working to include SDOH training within their dental curriculum, both in clinical and didactic teaching [5]. It will be important to learn from multiple approaches that can inform dental education, such as curriculum integration, interprofessional education, and experiential learning [5].

Based on evidence and research, including SDOH training in the pre-doctoral dental curriculum and in

continuing professional development could create acceptance and buy-in from dental education leadership. Also, replicating an evidence-based curriculum in several academic dental institutions would likely be easier. Allocating more research funds by the National Institute of Dental and Craniofacial Research and other federal, state, and foundation funding agencies would promote research on best education practices focused on dentistry's role in addressing SDOH.

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 SDOH. Convened in 2017, ADEA CCI 2.0 provided leadership in educational programming, faculty development opportunities, and innovative approaches to dental educators in an effort to incentivize change and innovation in transforming dental education. All academic dental institutions have CCI liaisons, who are champions promoting change and innovation in the dental curriculum within their institutes. ADEA CCI 2.0 works with these liaison faculty members year-round to provide tools for catalyzing change within their academic dental institutions.

Even with all of these changes, understanding SDOH is not a required competency for graduation from an accredited academic dental institution for pre-doctoral students. The Commission on Dental Accreditation could take steps to review the competencies and provide guidelines to academic dental institutions to increase and improve training on SDOH in dental education. WHO's National Health Workforce Accounts has provided guidance on accreditation standards for SDOH that could inform the process [11].

Conclusion

As the authors explain, including SDOH in dental workforce education and embedding these concepts across the curriculum will be a complex process. But as models of care become more person-centered and reimbursement models pivot from volume- to value-based care, SDOH will begin to emerge as the critical data and drivers necessary to improve health outcomes. All stakeholders will need to come together to make these changes to ensure the next generation of dental health specialists are well prepared to function in a whole *person-focused* practice.

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