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CCHE 620

May 3rd, 2024

Targeted Literature Review

Dental Education's Role in Addressing Healthcare Disparities:

A Literature Review and Call to Action

While dental technology and education have advanced, concerns persist regarding access to dental care, particularly in underserved communities. This paper explores how dental education addresses these challenges and prepares students with the tools to cater to diverse populations. It also discusses efforts to expand access through service education and community programs. Additionally, it looks at how engaging in-service learning during education can heighten students' understanding of healthcare inequalities and inspire them to work toward rectifying these disparities.

As healthcare disparities continue to challenge the public health environment, a sensible basis for enhancing the role of dental education in improving access to oral health care is offered by promoting, but not requiring, a voluntary service commitment after graduation commensurate with the magnitude of the subsidy received (Bertolami & Berne, 2014). For instance, from experience with Midwestern University, many students have received the Health Professions Scholarship Program (HPSP) offered by the U.S. military. This program pays for tuition in exchange for service. The program is different, but the concept is a similar incentive encouraging dental students to work and provide dental treatment where needed.

The authors discuss the economic benefit of this approach and what it can offer dental students through a method that estimates the student's tuition grants or scholarships at \$105,731 per graduate. Connecting dental education tuition reimbursement options to service commitments could significantly increase access to dental care. By doing so, we can reduce student debt and improve healthcare outcomes in communities that desperately need it. The option of providing tuition discounts based not on past residency status but instead on a future commitment to public service could be good public policy that could also help to create a culture in which dental students are given authentic options as part of a profession-wide ideology of public service (Bertolami & Berne, 2014).

Understanding dental students' attitudes toward underserved populations directly affects educational reforms and incentive programs. A study by Major et al. (2016) highlights how continuous exposure and specific educational strategies impact students' willingness and commitment to serving and treating diverse populations. Dental schools must also adequately train their students to competently address the potential challenges associated with treating a variety of populations (Major et al., 2016).

Over the four years of their education, dental students were surveyed to track changes in their attitudes toward treating different underserved populations. The study shows that the students' attitudes and willingness to serve these communities were strongly influenced by their clinical and educational experiences. While there was an increased positivity towards treating medically complex cases, known drug users, and HIV/AIDS patients, there was a notable decline in the willingness to treat populations such as the low-income, the elderly population, and non-English speakers (Major et al., 2016)

The study suggests that dental education can positively influence students' attitudes toward treating underserved communities. However, these changes may depend on student experiences and the emphasis of their training programs on serving these communities. Also, it stresses the importance of targeted interventions in dental education designed to equip students with the skills to treat patients from diverse groups. For example, fourth-year dental students at

Midwestern University engage in various clinic rotations for patients with immediate healthcare needs while enhancing their education and cultural competence. This demonstrates dental schools' need to provide experiences and engage students in conversation about the impact of their future roles as healthcare providers.

This section reviews the vital role of community-based dental education programs in meeting the oral health needs of underserved populations. Mays and Maguire (2018) provide insight into how these programs contribute to understanding access barriers and improving oral health outcomes in communities. To address these challenges, dental schools have integrated community-based dental education (CBDE) into their curricula, placing students in extramural clinics where they provide care in underserved communities (Mays & Maguire, 2018).

Community-based dental education programs represent a proactive approach to reaching those with limited access to oral healthcare services, which is a reminder of the complexities of campus climates discussed in Chapter 6 of our textbook. These programs often work with community organizations, clinics, and public health groups to deliver comprehensive care to those in need, fostering a supportive and inclusive environment like the campus climate initiatives. What institutions articulate as their values, along with their policies and actions at the organizational level, are key to realizing student-related outcomes in the psychological dimensions (Winkle-Wagner & Locks, 2020, p. 146).

The challenges of overcoming language barriers and managing patients from various demographic groups provide valuable learning experiences for students. Engaging in community-based dental education service learning allows students to develop clinical skills and confront challenges that may question their preconceived notions, broadening their perspectives on healthcare disparities. Identity can refer to many aspects of one's self-viewing: how a student negotiates the college environment about themselves, personality characteristics, how they think, and how they might see themselves in relation to others (Winkle-Wagner & Locks, 2020, p. 171). These experiences invite students to embrace diversity, have empathy, and cultivate cultural competence, essential for providing patient-centered care in our society.

As we explore areas to enhance dental education's impact on improving access to oral healthcare, postgraduate education initiatives are a needed approach. The article by Page et al. (2023) brings awareness to the shortage of dentists in underserved communities nationwide. The authors emphasize the critical role of postgraduate training in the dental workforce, guiding them into areas where they are most needed. Service learning like Teaching Health Centers (THCs), which have community-based training settings and postgraduate programs, has effectively addressed access challenges. The article explains the roadmap of dental and residency programs, encouraging community involvement, program formation, and accreditation. By navigating through stages of development, startup, and maintenance, dental programs can establish models that meet community needs, have financial stability and educational excellence. This plan is a valuable resource for community-based health organizations, universities, and other investors in addressing oral healthcare disparities. Postgraduate dental training programs are a critical tool to address projected shortages, workforce maldistribution, and an aging rural dental workforce (Page et al., 2023)

Community involvement is essential in developing these service-learning for postgraduate dental programs. By collaborating with local clinics and healthcare providers, dental programs can adjust their approach to address each community's specific oral health need. As Ch. 9 of our textbook mentions, personal socialization refers to a student's sense of their beliefs and knowledge coming into the program and how these change during the program (Winkle-Wagner & Locks, 2020, p.237). Service-learning experiences raise awareness among dental students about healthcare inequalities and inspire their participation. Integrating service-learning components into postgraduate dental education equips students with hands-on skills and fosters a better understanding of their role in promoting health equity.

Behar-Horenstein et al. (2015) emphasize the impact of service learning in dental education on addressing dental disparities. Such authentic experiences can help students begin to recognize how interactions among patient culture, lifestyles, and behaviors are impacted by the services that dental practitioners offer in the context of issues related to access and disparities (Behar-Horenstein et al., 2015). Through a six-week service-learning program, dental students get firsthand experience in at-risk settings, which enhances awareness of healthcare disparities. This research aligned with the growing importance of recognizing community-based dental education in addressing oral health disparities. Dental schools like Midwestern University (MWU) are actively contributing. MWU is leading these efforts because of its commitment to providing dental care at no charge to underserved communities, with two free clinics a year. One is dedicated to treating military veterans, and the other clinic is for children from low-income families. By integrating service learning as a basis for dental studies and providing hands-on experiences in community clinics, universities like MWU prepare students to understand and serve the complicated social, cultural, and economic factors that influence oral health outcomes.

In conclusion, dental students working in community-based dental clinics, and postgraduate training play a vital role in equipping future practitioners with the skills and mindset to serve underserved communities. As Behar-Horenstein et al. (2015) highlight, authentic experiences in at-risk settings enhance students' awareness of healthcare disparities and cultivate a desire to address these issues. Initiatives taken by Universities like Midwestern, where free dental clinics are incorporated within the program, demonstrate the commitment to community service. Dental schools must continue integrating service-learning components into curricula and collaborating with local organizations to address specific oral health needs in diverse communities. As we strive for a future where everyone has access to quality oral care, the role of dental education in shaping compassionate and culturally competent practitioners remains indispensable.

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