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INVITED REVIEW

Undoing structural racism in dentistry: Advocacy for dental therapy

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Abstract

Like other areas of health, structural racism has a deep impact on oral health and is a key driver of racial inequities in access to care and outcomes. Racism also structures the relationship between oral health and access to economic opportunities. As a result, communities of color, American Indian/Alaska Native (AI/AN) communities, and low-income populations experience the highest rates of the health, social, and economic costs of dental disease. This is compounded by issues of community-level dental fear/trauma resulting from receiving itinerate care. Dentistry has long struggled to equitably distribute care and diversify its overwhelmingly white and affluent workforce, resulting in many communities not having access to providers who represent their identity and/or live in their community. While multi-generational lack of access to dental care is not unique to Alaska, Alaska Native communities are the home to a reimagined, community-centered care delivery system that is improving health outcomes. For almost two decades, AI/AN leaders have recruited and trained community members to serve as dental therapists—dental team members who offer routine and preventive care responsive to local geographic and cultural/community norms. As members of the communities they serve, dental therapists are fluent in the language and cultural norms of their patients, improving patient-provider trust, access to care, and oral health outcomes. The communities that dental therapists serve are also now investing money and training in their community members, building educational opportunities, and professional wage jobs and directly countering the economic impact structural racism has on oral health.

KEYWORDS
access to care, dental care, dental therapy, health-care workforce, oral health disparities

INTRODUCTION

Growing evidence shows that good oral health depends on social determinants [1,2] and the policies that shape access to care. Evidence also confirms the impact of structural racism on peoples' oral and overall health: Black, American Indian and Alaska Native (AI/AN), and Latinx populations all face greater barriers to care and worse oral health outcomes [3–5].

Strategies for undoing structural racism in dentistry must include policies that prioritize the needs of communities who have been most impacted by lack of access—namely, communities of color, Tribal communities, low-income populations and those who experience intersecting forms of discrimination, including immigrants, LGBTQ+ communities, and people with disabilities. Dental therapy is one solution that can help fill these gaps by expanding the dental workforce, bringing care into communities, and improving the representativeness of dental providers to provide culturally respectful care.

STRUCTURAL RACISM IN DENTISTRY: WORKFORCE DIVERSITY, ACCESS, AND TRAUMA

Barriers to accessing dental care include an insufficient and maldistributed pool of providers, especially those who

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are racially and culturally representative of their patients or are located in rural and low-income communities [6]. More than 62 million people in the U.S. live in communities without enough dental providers [7]. People of color, Tribal communities, and low-income populations often have more difficulty finding dental providers, particularly ones that share their language or culture. Significant research documents the importance of racial concordance on patient experience and health outcomes [8,9]; however, about 70% of dentists are white; Black, Hispanic and AI/AN people are particularly underrepresented in the profession [10,11].

The average total cost of dental school (after college) ranges from $259,990 to $325,891 [12]. Given existing income and wealth disparities [13], the lack of racial diversity in the dental profession is not surprising. Communities that lack access to dental care also lack access to other social and economic determinants of health, like education and professional-wage jobs. Ultimately, structural racism plays out in dentistry on both the provider and patient sides: marginalized communities lack both access to care and to the profession.

Finally, trust, the ability to relate, and comfort with a health care provider have been shown to improve outcomes [14] and the patient experience [15]. Dental fear is common across demographic groups, but in communities that have historically lacked access to care, the roots of this fear are often found in trauma [16]. This relationship was poignantly captured by Valerie Nurr'araaluk Davidson, current president of the Alaska Native Tribal Health Consortium (ANTHC):

> As a child, I remember when the dentist came to our village once a year. As we waited in line to be seen, we could hear the screams behind the door as teeth were pulled from children ahead of us. The door would open and we'd see our crying brother, sister, cousin or friend holding a bloody gauze bandage to their mouth. We always asked how many teeth were pulled… For our children, going to see the dentist was truly traumatic. I have a cousin who still cannot be seen by a dentist unless she is under full anesthesia. Imagine how frightening it is for her to seek oral health care for her children [17].

Alaska Native villages are not the only communities in the United States to lack needed dental providers [9], and in particular, the diversity of providers needed to support racial concordance and offer culturally respectful care. While overhauling inequitable systems will require long-term, sustained work, forward-thinking tribal leaders in Alaska have embraced one approach that is making a difference—dental therapy.

DENTAL THERAPY AS PART OF THE SOLUTION

Dental therapists (DTs) are primary oral health care providers who can work in any setting, but are designed to serve in community-based settings on dental teams. DTs are supervised by dentists and complement the care provided by dentists and other team members. They are trained to provide a subset of the procedures that dentists perform, focusing on prevention and the most common routine and restorative services, including repairing cavities and simple extractions. This targeted training allows DTs to free up dentists to perform more complex procedures, resulting in a more efficient team and more available access for patients.

The dental therapy profession is well established and accepted internationally, now firmly in place in over 50 countries since its creation a century ago [18]. Alaska Native Tribal leaders brought dental therapy to the US in response to a legacy of colonialism and structural racism, which resulted in long-term provider shortages, lack of access to care, and poor oral health outcomes. In addition, a severe shortage of dentists willing to practice in small, rural communities, a revolving door of itinerate providers, and the underrepresentation of AI/AN dentists contributed to the disproportionate oral health problems they experienced.

After decades-long efforts to recruit and retain dentists—including dental student loan repayment programs and other financial incentives for providers—did not produce sufficient improvements, Alaska Native leaders built their own local workforce. In 2004, the Alaska Native Tribal Health Consortium (ANTHC) began recruiting individuals from their own communities and essentially "grew their own" cadre of dental providers. As a result, these DTs share the culture and language of their patients, and have the expertise to leverage local resources, strength, and resilience. This familiarity increases patient trust and satisfaction [19]. Additionally, in Alaska, having a DT in the community has been shown to be positively associated with receiving preventive dental care, for both children and adults; over 10 years, communities with a DT saw at least a twofold increase in children's receipt of preventive care. Having a DT has also been shown to be negatively associated with D-E-F-G extractions in children [20]. Ultimately, DTs in Alaska have expanded regular access to dental care to over 40,000 Alaska Native people [21]. DTs have shown these impressive results in improving oral health, while also driving educational advancement, economic opportunity, and trauma-informed care. By addressing both health care and social determinants factors, dental therapy is a critical tool for undoing structural racism in dentistry.

Based on this success, dental therapy soon expanded beyond Alaska. There are now 13 states where DTs are

authorized to practice in some or all settings. Five of these states have DTs actively working, with the rest setting the regulatory groundwork for implementation. The positive impact of DTs is also apparent in these states. In Minnesota, DTs have improved access to care, allowed clinics to see more patients—especially uninsured and other underserved patients, and reduced appointment wait times and travel times [22]. Preliminary results of a DT pilot program in Oregon similarly showed that DTs decrease appointment wait times and increase access to care [23]. Many other states and tribal nations are actively pursuing dental therapy authorization. In 2021, the Alaska dental therapy education program at Iḷisaġvik College became the first dental therapy program to be accredited by the Commission on Dental Accreditation (CODA) [24].

Dental therapy policy to advance equity

Alaska Native communities are diverse and unique in many ways; however, the pattern of economic disinvestment, lack of access to care, non-representative providers, and resultant poor oral health is consistent in many marginalized communities across the country, in both rural and urban areas. This pattern of structural racism is underscored by longstanding racial inequities in oral health and drives home the positive impact DTs can have on underserved communities. The evidence is robust: DTs improve access to preventive care and health outcomes such as reducing the need for tooth extractions [20]; are highly trusted and respected; and are a regular source of care in communities that have historically lacked dental providers [25]. DTs additionally strengthen the oral health provider market and make clinics more profitable, while increasing their ability to see new patients and expand care for underserved communities. In Minnesota, savings of upwards of $50,000 per DT has been reported by clinics as a result of lower salary and insurance costs. DTs have also shown to increase the productivity of the whole dental team, freeing up dentists to perform more complex procedures and allowing clinics to use associated cost savings to serve more underserved patients [22].

These positive results are due, in large part, to two main pillars of dental therapy policy: reasonable time and cost of training and community-based practice facilitated by off-site supervision (or "general supervision"). While training to become a dentist takes about 8 years, DTs can be successfully trained in three academic years, due to the fewer number of procedures they provide. Based on a large body of evidence on the effectiveness and safety of DTs [18], the 2015 CODA accreditation standards for dental therapy education [26] affirmed that a three-academic year program produces well-trained DTs. These national standards open the door to a much more diverse array of students and helps get well-trained providers into the field more quickly.

Additionally, the ability to provide care under "general supervision"—where supervising dentists do not need to be in the same location where care is being provided—has been indispensable for the profession's success in expanding care to community settings. "General supervision" allows DTs to work in clinics, even when a dentist is not on site, as well as in community settings like schools, nursing homes, and mobile units.

Unfortunately, there are forces that resist changes to the dental profession. They seek to erect barriers to protect their professional and financial self-interests and maintain the status quo for their own benefit, at the expense of the wellbeing of communities and of promoting diversity and equity within the profession. For instance, arbitrary mandates for unnecessary educational requirements raise the cost and length of training, creating obstacles especially for people from marginalized communities. Despite this opposition, dental therapy is taking hold across the country as policymakers, funders, and other key power brokers recognize the progress and promise of dental therapy in helping to achieve better oral and overall health for all.

Other communities wanting to mimic this success to diversify their local dental workforce and improve access to care must uncompromisingly resist all efforts to add unnecessary additional years of training, prerequisites, and/or mandates for DTs to obtain a specific degree or require that DTs practice under levels of supervision more stringent than "general supervision". When designed well, dental therapy policy imbues race equity into the profession and expands access to care for underserved communities.

CONCLUSION

Dental therapy is a proven solution to expand the dental workforce, improve access for underserved communities, and increase the diversity of dental providers who provide trusted and culturally respectful care.

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