The Role of Pediatric Trainees in Addressing Oral Health Disparities in Children

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Hoping not to reveal my inexperience, I opened the package and picked up what looked like a child-sized paintbrush. It was nearing the end of our well-child visit, and my attending physician had asked me to apply fluoride varnish for Louisa, a 2-year-old girl who looked just a bit more nervous than I was. “Say aaaaah,” I said, as I brushed on the bubble gum–flavored, caramel-like substance over her teeth. Her face showed relief about the painless procedure, which took <30 seconds, as well as about the surprisingly sweet taste of the varnish. A few minutes later, after a proud high five, she was skipping out the door with her newly coated teeth and a smile that matched my own.

For children like Louisa, preventive oral health care is imperative, not only because early childhood caries is the most common chronic childhood illness, but also because low-income and resource-poor families like hers are often disproportionately affected. Specifically, children experiencing poverty are twice as likely to suffer from dental caries as their more affluent peers.1 There are many reasons for this disparity, including the cost of dental care, a shortage of dentists that accept Medicaid, a lack of dentists that treat pediatric patients, and low health literacy in navigating the dental care system.1,2 Although seemingly innocuous, poor dental care during childhood can have devastating consequences because of its many downstream effects, including poor growth, increased sleep disturbances, an increased number of missed school days, and an overall decrease in quality of life.1,3,4 Notably, children lose 51 million school hours annually because of dental disease, with children living in poverty experiencing almost 12 times as many restricted activity days as their peers in high-income families.1 When untreated, caries can have severe consequences, such as abscess formation, facial cellulitis, septicemia, and complications related to treatment and the use of anesthesia. Even if treated appropriately, families are left with the large financial costs of outpatient care or hospitalization.

ACCESS TO DENTAL CARE

Medicaid’s Early and Periodic Screening, Diagnostic, and Treatment Program requires that a minimum level of dental care, both preventive and treatment-based, be provided for children on Medicaid.5 Yet, the authors of a 2013 national report noted that less than half of children covered by Medicaid ages 0 to 18 years received a dental visit in a 12-month time span.6 This statistic is far worse for children living in poverty experiencing almost 12 times as many restricted activity days as their peers in high-income families.1

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0 to 3 years of age, of whom only 9% received a preventive dental visit.\textsuperscript{7} The reasons for this poor use are complex, but limited access to dental care remains the greatest barrier, especially in rural areas. In 2017 there were \textasciitilde{}63 million Americans living in dental health shortage areas, and only 35% of need was met for dentists in the United States.\textsuperscript{8} Even in areas where dentists are more accessible, many dentists do not accept Medicaid because of low compensation as well as increased paperwork and billing requirements.\textsuperscript{9} This lack of accessible and affordable pediatric dental care makes it challenging to receive preventive oral health care at the dentist’s office.

ROLE OF PEDIATRICIANS AND PEDIATRIC TRAINEES

One measure that could improve access to dental care is the provision of preventive oral services in the primary care setting. At age 2, Louisa did not have a dental home, but she had already completed 11 well-child visits with her pediatrician. This level of continuity and consistency makes the pediatrician’s office an effective setting to deliver preventive oral health care. Bright Futures recommends the application of fluoride varnish every 6 months from the first eruption of teeth through the first 5 years of life, yet nationally, only 4.3% of nondental providers (ie, pediatricians and family practitioners) who accept Medicaid incorporate oral preventive services into their routine well-child examinations.\textsuperscript{10} It is important to note that although rates of provision of oral preventive health are low nationally, there is considerable variation from state to state (Fig 1). One reason that nondental providers fail to incorporate oral preventive health care in their practice is the lack of training during residency and beyond. In 2006, the American Academy of Pediatrics (AAP) Graduating Residents Survey revealed that the majority (71%) of graduating pediatricians felt that they did not receive adequate training in oral health. In more recent surveys, one-third of residents did not receive any training in oral health, and of those who did, 75% received <3 hours of training.\textsuperscript{11} These residents make up today’s pediatric workforce, in which few feel comfortable providing these services. Despite endorsement for fluoride varnish in the current Bright Futures guidelines and the expansion of provider reimbursement from Medicaid for the application of fluoride varnish, if pediatric trainees do not feel that oral health training is sufficient or do not receive training at all, they are much less likely to put these skills into practice.

RANGE OF ORAL PREVENTIVE SERVICES

Pediatricians and trainees can perform oral examinations and risk assessments to identify children in need of higher-level care. Specifically, the AAP Risk Assessment Tool is used to risk-stratify patients and guide clinicians as they provide patient education, oral health care services, and dental referrals.\textsuperscript{12} The “Bright Smiles from Birth Training Video” can help trainees learn how to perform oral examinations and apply fluoride varnish in the clinic setting.\textsuperscript{13} In addition, trainees can reference the Centers for Disease Control Web page “My Water’s Fluoride” to determine the level of fluoride supplementation they should recommend to patients on the basis of their location.\textsuperscript{14} If trainees have difficulty finding local dental providers, the “InsureKidsNow” Web site is an excellent source to...
find dentists that are accepting new patients with Medicaid.\textsuperscript{15}

For a comprehensive overview of these recommendations, as well as information on how to perform oral examinations and provide oral health care services, providers can reference the AAP’s continuing education program Protecting All Children’s Teeth, which is a free Web-based resource used to train pediatricians and residents.\textsuperscript{16} Research suggests that trainees feel most comfortable incorporating oral health into practice when they have received a multifaceted education with both didactic and hands-on training.\textsuperscript{17} Residents and medical students can help to coordinate hands-on training opportunities to supplement standard lecture- and discussion-based training at their school by collaborating with their affiliated dental schools. Residents also can apply for resident-specific grants such as the AAP Community Access to Child Health grants to coordinate fluoride varnish implementation in their respective programs and continuity clinics.

**RESEARCHING STATE-SPECIFIC REIMBURSEMENT POLICIES**

Trainees should also be aware of their state-specific Medicaid reimbursement policies because these policies determine the types of services that they will be able to provide (oral examinations, fluoride varnish, education, or dental referral), how much they will be reimbursed, who can perform these services, and what patient age ranges would qualify for reimbursement. The AAP Children’s Oral Health and Resource Map outlines specific reimbursement policies and local oral health advocates who can provide guidance when navigating the process of training and implementation.\textsuperscript{18}

**CONCLUSIONS**

Regular access to oral health care remains 1 of the greatest challenges for children covered by Medicaid, given that untreated caries often lead to many health and financial consequences for the child and their family. Because pediatric dental care is limited for a variety of reasons, the primary care setting is an ideal setting to provide a wide range of these oral preventive services. Because Medicaid reimbursement for oral health care services for pediatricians and other primary care providers is expanding throughout the United States, trainees have a responsibility to learn how to provide vulnerable families with these services. Although implementation can be difficult, increasing access to oral health services in the primary care setting can improve health outcomes for children covered by Medicaid and ultimately reduce the incidence and subsequent effects of the most prevalent chronic disease of childhood.

**ABBREVIATION**

AAP: American Academy of Pediatrics

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