COLLABORATION BETWEEN MEDICAL PROVIDERS AND DENTAL HYGIENISTS IN PEDIATRIC HEALTH CARE

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Editor's Note

Demonstration projects have provided preliminary evidence of the feasibility of locating dental hygienists within the medical home to expand access to early preventive oral services for vulnerable child population. The pediatrician and Delta Dental project manager who co-author this article explain the implementation of this innovative care delivery system in Colorado and describe early outcomes.

ABSTRACT

Basic preventive oral services for children can be provided within the medical home through the collaborative care of medical providers and dental hygienists to expand access for vulnerable populations.

Background

Because dental caries is a largely preventable disease, it is untenable that it remains the most common chronic disease of childhood. Leveraging the multiple visits children have with medical providers has potential to expand access to early preventive oral services. Developing interprofessional relationships between dental providers, including dental hygienists, and medical providers is a strategic approach to symbiotically expand access to dental care. Alternative care delivery models that provide dental services in the medical home expand access to these services for vulnerable populations. The purpose of this article is to explore 4 innovative care models aimed to expand access to dental care.

Methods

Current activities in Colorado and around the nation are described regarding the provision of basic preventive oral health services (eg, fluoride varnish) by medical providers with referral to a dentist (expanded coordinated care), the colocation of dental hygiene services into the medical home (colocated care), the integration of a dental hygienist into the medical care team (integrated care), and the expansion of the dental home into the community setting through telehealth-enabled teams (virtual dental home). Gaps in evidence regarding the impacts of these models are elucidated.

Conclusion

Bringing preventive and restorative dental services to the patient both in the medical home and in the community has potential to reduce long-standing barriers to receive these services, improve oral health outcomes of vulnerable patients, and decrease oral health disparities.

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INTRODUCTION

Oral Health Disparities

Although largely preventable, caries remains the most common chronic health condition in childhood[1] and can lead to detrimental effects on children's development, school performance, and behavior.[2] Caries reduces the quality of life for children, and their families experience stress as a result of their inability to access dental care.[2-4] Caries in all ages results in costly restorations of cavities, pain, infections, emergency department visits, hospitalizations, and rarely death.[2,5] In National Health and Nutrition Examination Surveys II and III, more than 40% of children 2-11 years old had caries,[6,7] and striking disparities existed.[8] The dental experiences of Hispanic children reflect some of the most extreme disparities with low-income Hispanic children having twice the level of disease of their white, advantaged counterparts.[9] The rates of dental disease in Native American children are perhaps the most extreme in the world with up to 90% of preschool Native American children having severe early childhood caries or caries in their primary dentition.[10]

Low-income children of all ages insured by Medicaid or lacking any dental insurance have more than twice the rate of dental caries as nonpoor children and are less likely to receive preventive or restorative dental care for their cavities.[1,11] Dentists working outside of the safety-net health care system are less likely to treat children with public insurance.[12] As the dental and medical communities gain a better understanding of the caries disease process, they are beginning to advocate for earlier access to primary preventive oral health services for children at high risk for developing this disease, especially early childhood caries. Consequently, dental and medical professional groups including the American Association of Pediatric Dentistry, the American Dental Association, and the American Academy of Pediatrics recognize the need for innovative strategies that bring together the interprofessional and collaborative efforts of the various stakeholders to have a collective impact on expanding access to early dental services and reducing oral health disparities.[13,14] In addition, many Colorado foundations have developed a strong interest in (and demonstrated a commitment to) reducing the oral health disparities experienced by Coloradans (see Box 1).

Box 1. How authors were led to this work.

For the past 20 years, author P.A.B. has been a pediatrician at a large safety-net health care system in Denver, Colorado. Having persistently seen the poor oral health of the families she serves, she developed a keen interest in reducing the oral health disparities they experience. She has become more consciously aware of the fact that all of her patients have a mouth and that the health of their mouth impacts their overall physical and mental health. Author P.A.B. has learned that oral disease—specifically dental caries—is largely preventable with prevention and early intervention. The commonly used adage "two is too late" has resonated with her. She passionately believes that children have a better chance at having a healthier mouth through better access to early and frequent preventive oral health services.

Coauthor (A.C.) has worked both in Washington and Colorado on the foundation side of care and has invested her career in developing and directing programs focused on improving the oral health of populations and reducing oral health disparities.

Coordination vs Colocation vs Integration

Programs aimed at reducing oral disparities are emerging. These focus on building collaborative relationships with dentists and building partnerships across health professions that will benefit populations. The provision of oral health services is being expanded outside of the traditional dental home and into new settings used by vulnerable populations where children can be reached at an early age. A spectrum of programs will be described that bring dental services into medical and/or community settings: (1) coordination where enhanced care by the medical provider includes basic preventive oral health services at the medical visit with a coordinated referral to an outside dentist; (2) colocation of dental hygiene services in the medical practice; (3) integration of dental hygienists within the medical care team with case coordination to a dentist for restorative needs; and (4) telehealth-supported dental hygiene services are provided in the community.

Basic Preventive Oral Health Care in the Medical Home

Recognizing that substantial challenges exist in getting young children to a dental provider, and that medical providers have numerous opportunities (up to 12 well-child care visits from birth to 36 months of age) to see infants, toddlers, and preschoolers at frequent and regular intervals, the medical home is being leveraged to expand access to preventive oral health services for children. In response, an oral health movement has been spreading across the nation that promotes the provision of basic preventive oral care to high-risk infants and young children by medical providers in the medical home. Providing the services listed in Box 2 in the medical setting aims to address the severe shortage of dental providers serving vulnerable children and takes advantage of the early