Policy on Social Determinants of Children's Oral Health and Health Disparities

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Purpose

The American Academy of Pediatric Dentistry (**AAPD**) recognizes the influence of social factors on children's oral health including access to care, dental disease, behaviors, and oral health inequalities. The AAPD encourages oral health professionals and policymakers to formally acknowledge the role social determinants of health (**SDH**) have in producing and perpetuating poor oral health and oral health disparities. Moreover, the AAPD encourages the implementation of oral health promotion strategies that account for SDH and clinical management protocols informed by and sensitive to SDH. All relevant stakeholders (eg, health professionals, researchers, educators, policy makers) are encouraged to develop strategies that incorporate SDH-related knowledge to improve oral health, prevent dental disease, and address oral health inequalities in children.

Methods

This policy, developed by the Council on Clinical Affairs, adopted in 2017,[1] and last revised in 2022,[2] is based on a review of the current literature, including a search of PubMed/MEDLINE database using the terms: (*social determinants of health* [**MeSH**] OR ***SDOH*** [**Tiab**] OR ***SDH*** [Tiab] OR *oral health disparities* [Tiab] OR *adverse childhood experiences* [MeSH] OR *toxic stress* [Tiab] OR *health disparate minority and vulnerable populations* [MeSH] OR *child development disorders, pervasive* [MeSH] OR *children with special health care needs* [Tiab]) AND (*evidence based dentistry* [MeSH] OR *dental care for children* [MeSH]); limits: in the last 10 years, English, and humans. A total of 101 articles matched these criteria. Articles for review were selected from this list, the references within selected articles, and other articles from the literature.

Background

The World Health Organization defines social determinants of health as "the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life".[3] Life circumstances are heavily influenced by social behaviors, cultural practices, government policies, and economic and political systems.[4] The term SDH implies that improving social conditions is necessary to optimize health outcomes for vulnerable populations, narrow inequalities, and achieve health equity and social justice.[5] Health equity may be defined as the "fair and just opportunity to be as healthy as possible",[6] a concept that requires elimination of those societal factors (eg, poverty, discrimination, lack of access to health care) that unfairly result in poorer health for at-risk social groups. Social groups can be identified by many characteristics including ethnicity, religion, socioeconomic status, gender identity, age, disability status, sexual orientation, or geographic location.[7,8] From a social justice perspective, addressing SDH is essential to achieving improved oral health outcomes and reducing inequalities for children from historically disadvantaged groups.[8] One strategy is to prioritize interventions, programs, and policies that properly acknowledge and account for SDH.

Past work has demonstrated gradients in oral health outcomes based on socioeconomic position.[4,9,10] Measures of socioeconomic position include income, educational attainment, occupation, and race/ethnicity.[11] SDH are influenced by socioeconomic position and more broadly embody the social environment and context in which individuals live and make health-related decisions over the life course.[4,12] Various conceptual models from dentistry include SDH as upstream factors that influence oral health behaviors, dental disease rates, and oral health outcomes.[13-18] In 2013, the American Academy of Pediatrics published a policy statement that acknowledged the influence of SDH on chronic diseases including dental caries.[19] Since then, the body of scientific research addressing SDH and oral health has grown substantially. Findings from the social determinants of children's oral health literature can be organized into categories that provide guidance on how dentists, other health professionals, researchers, educators, and policy makers can account for SDH to improve children's health outcomes. Examples are provided of past efforts and future opportunities to address children's oral health inequalities through SDH-based interventions, programs, and policies.

SDH commonly are measured at the caregiver or household level. The SDH affecting a caregiver's oral health outcomes also affect that caregiver's children's oral health directly and

ABBREVIATIONS

AAPD: American Academy of Pediatric Dentistry. **MeSH:** Medical subject heading. **SDH or SDoH:** Social determinants of health. **Tiab:** Title and abstract.

indirectly.[20] Caregiver level of education influences both material and nonmaterial components of a child's oral health, including access to and utilization of preventive services, dental knowledge, and oral health behaviors.[12,21,22] Socioeconomic status was found to mediate the influence of maternal psychological factors (eg, depression, external locus of control, self-efficacy) on oral health in offspring.[23-27] Negative dental beliefs, specifically oral health fatalism, are linked to low self-efficacy, which in turn influences dental utilization.[28] Examples of SDH at the household level[29,30] include food insecurity (defined as reduced quality, variety, or desirability of diet, and disrupted eating patterns with or without reduced food intake[31]) and overcrowding. These factors can make it difficult for families to afford noncariogenic food[32,33] and preventive oral hygiene products or to have designated spaces in the home for important routines like toothbrushing.[34,35] Children living in settings with multiple social risks are at substantially greater risk for caries.[4,32,33,36] SDH may be reflected by a heavy allostatic load (biological markers of chronic stress) among household members, with implications for poor oral health behaviors and higher caries rates.[37,38] Examples of ways in which chronic stress associated with socioeconomic status leads to negative physiologic effects on oral health include pro-inflammatory, endocrine, and microbiological responses.[39] Multiple studies[40,41] have found a correlation between social stressors, endocrine factors (eg, cortisol), and dental caries. Many studies have reviewed the effects of adverse childhood events, which are heavily connected to socioeconomic stress, on child behavior and health.[42] Poverty and stress could influence child temperament[43,44] and behaviors[45,46] in dental settings, including the ability to cooperate for dental procedures.

SDH are also measured within neighborhoods and communities. Neighborhood income and resources are positively associated with oral health-related behaviors like improved oral hygiene practices, lower plaque levels, and lower dental disease levels for children.[22,47-50] In addition, higher levels of income inequality within a community are associated with poorer oral health outcomes,[51] while children living in higher opportunity neighborhoods have more access to dental care.[52]

Social capital, a term that encompasses social networks, social support, and social cohesion, is an important SDH that affects both individuals and communities.[53] The norms and trust embedded in communities can improve status of and access to resources such as community centers.[54,55] Social norms can mediate the way in which resources are deployed, and increased social capital, therefore, may not always lead to better oral health outcomes.[56] Still, studies generally have reported positive health outcomes associated with greater levels of social capital.[57-61] Social support is tied to emotional development in adolescents, including self-efficacy, trust, and avoidance of detrimental oral health behaviors.[62] Weak social ties and social networks are associated with poor oral health outcomes.[21,62,63]

Structural determinants of health are formed by the economic, political, and social policies that modulate SDH.[7] Economic policies affect employment to population ratios, standard of living, and individual cost of living, which in turn influence access to health insurance or ability to pay for health care expenses. Policies that have expanded Medicaid access, reduced influences of neighborhood poverty, and invested in education quality have demonstrated long-term positive health outcomes for youth.[64] The determination of public insurance coverage for specific procedures, including the cost of general anesthesia during dental treatment, is at the discretion of individual states rather than the federal government. Depending on individual state Medicaid policies, out-of-pocket costs may be prohibitive and divert patients toward less ideal treatment options for behavior management.[65] Inability to pay for services may prevent some children from receiving treatment at all. Sociolegal policies that regulate insurance coverage, including those related to preauthorization and informed consent, have been shown to delay or prevent adolescents from obtaining health services.[66]

Translational science has led to the development of pediatric oral health interventions that address SDH. These have varied from a focus on improving the health of the mothers and on prevention for their at-risk children[67] to other initiatives (eg, school-based sealant programs[68]), developed to overcome socioenvironmental barriers to oral health care and reach at-risk children. An economic analysis found that school-based sealant programs are cost effective and can significantly reduce restorative dental treatment needs.[69] That future oral health interventions account for SDH and aim to achieve greater health equity for all children is imperative.

Systematic policies and environmental changes that improve personal and community living conditions and alleviate poverty are necessary to address SDH. Examples include the US Department of Housing and Urban Development (HUD) housing programs, emergency rental assistance and community development programs, public health insurance programs (eg, Medicare, Medicaid, Children's Health Insurance Program [CHIP]), and programs that mediate food insecurity (eg, Supplemental Nutrition Assistance Program [SNAP], National School Lunch Program [NSLP]). Broader policies are likely to have the long-term impact needed to improve the conditions in which vulnerable families and children live.

Policy statement

Recognizing the importance of the social determinants of oral health for children, the AAPD

- supports broader policies and programs that help to alleviate poverty and social inequalities.
- encourages dentists and the oral health care team to collect a social history from patients, provide anticipatory guidance that is sensitive to SDH, and connect patients with helpful resources (eg, social service organizations, food banks) when needed.
- supports interprofessional educational approaches to train students as well as practicing dentists and health professionals on the SDH.
- endorses interdisciplinary approaches to improve oral health that account for social determinants of chronic diseases.

- supports additional research to understand mechanisms underlying the social determinants of oral health.

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