users. When periodontal conditions were considered, most users were healthy. They had significantly lower odds of being in a disease category relative to health regardless of cleaning frequency, except for mild disease and flossing 1 to 3 times/week, although this showed a similar trend. Less frequent interdental cleaning was associated with significantly higher odds of having severe disease compared to more frequent cleaning. Overall, individuals who used interdental cleaning devices had a lower percentage of interproximal clinical parameters related to periodontal disease, fewer carious teeth, and fewer missing teeth than nonusers (Figure 3).

DISCUSSION

Interdental cleaning was significantly associated with lower levels of periodontal disease, fewer carious teeth, and fewer missing teeth than not performing interdental cleaning. Persons who cleaned the interdental areas less frequently had a higher risk for severe periodontal disease than those who cleaned more frequently. Thus the evidence that interdental cleaning is associated with reduced levels of oral disease is supported.

Clinical Significance

Interdental cleaning has a positive preventive effect against periodontal disease and dental caries. Performing it more often, specifically, 4 to 7 times/week, tends to lower the chance of having interproximal periodontal disease compared to less frequent or no cleaning of this important area. Interdental cleaning constitutes an important component of oral hygiene with respect to its ability to promote oral health and avoid oral disease.

Marchesan JT, Morelli T, Moss K, et al: Interdental cleaning is associated with decreased oral disease prevalence. *J Dent Res* 97:773-778, 2018

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ORAL/SYSTEMIC CONUNDRUM

Justifying oral health care

BACKGROUND

Much ink has been used to print studies suggesting an association between oral health and systemic diseases such as cardiovascular disease and hypertension. However, although dentistry has a vital role in public health and in the lives of our patients, going beyond that to claim that oral health derives its value from its effects on systemic disorders may be misleading.

CURRENT LITERATURE

Over the past 25 years or so, researchers have reported associations between oral diseases and conditions such as preterm birth, diabetes, cardiovascular disease, stroke, and cancer. The message being conveyed is that having good oral health will modify, reduce, or prevent some systemic diseases. The media has taken this message and used it to grab headlines and dental professionals and organizations have used it to recruit new patients and to justify insurance coverage for oral health care, but is it true?

The current literature lacks convincing, high-quality evidence that oral health care actually exerts a measurable effect on specific diseases. Without the support of this high-quality scientific evidence, making such claims can damage the credibility of the dental profession.

In actuality, the research into possible associations between oral and systemic disease has yielded a variety of results. Factors that produce this variation include heterogeneous participant populations, different study designs, and bias in selecting facts that make a case for or against the role oral disease may have on a systemic condition. Meta-analysis can be useful

Clinical Significance

Dentistry is more closely aligned with medicine than at any other time in modern history. Preventive dental care for people who suffer chronic systemic diseases will improve their oral health and lower the cost of their dental treatment. Research should continue into possible associations between oral and systemic health and disease and into the costs and benefits of preventing and treating oral disease. It would be good to establish the effectiveness of screening for systemic disease in dental settings and to evaluate the outcomes of dental care for patients who are receiving treatment for cancer, organ transplantation, joint replacement, and invasive cardiac procedures, for example. But for most patients, good oral health alone is sufficient justification to participate in effective preventive care and treatment for oral disease.

for assessing the results of multiple studies, but it can't overcome the shortfalls of existing studies or data that have been gathered. Possible causal mechanisms have been suggested and studied, but there exists no definitive evidence that treating oral disease can exert a meaningful effect on the prevention, treatment, or outcomes of any systemic disease. Association does not prove causation.

RECOMMENDATIONS

Dentistry should take a cautious approach to this oral-systemic linkage research. In addition, it's important to remember that the main reason for maintaining good oral health is its importance for the patient's quality of life and health status. Having good oral health benefits the patient by allowing efficient, effective chewing, the enjoyment of food, a pleasing appearance, self-confidence, and freedom from pain and infection, among other things. Poor oral health is associated with many disadvantages that can be avoided by treatment. Just the fact that good oral health can benefit the patient's life should be justification enough to recommend it.

Pihlstrom BL, Hodges JS, Michalowicz B, et al: Promoting oral health care because of its possible effect on systemic disease is premature and may be misleading. *J Am Dent Assoc* 149:401-403, 2018

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PEDIATRIC DENTISTRY

Infant oral health

BACKGROUND

Infant oral health (IOH) has been advocated for many years, but has been slow to be universally accepted by medical and dental professionals. IOH refers to having the child make a first visit to the dentist between ages 6 and 12 months. During this visit, the child is examined and undergoes a dental caries risk assessment. The parents receive preventive instruction, establish a relationship with the dentist (a dental home), and usually have fluoride varnish applied to the child's primary teeth. Although IOH is supported by major dental health associations, it can also be performed by the primary care medical provider (PCP) when a dental referral is not possible. From a public health perspective, IOH is a primary prevention tool similar to well-child visits, where the child undergoes developmental screening, immunizations, and anticipatory guidance. The rationale for IOH, obstacles to its acceptance, its benefits, and its role as a public health tool were discussed.

RATIONALE FOR IOH

One of the major goals of IOH is to identify children at risk for early childhood caries (ECC) so that preventive actions can be taken. Once ECC occurs, it starts a process that can lead to a life-long propensity to develop new caries, so prevention is vital. The evaluation of ECC risk includes an assessment of the child's oral microbiome and his or her diet. ECC occurs when dietary sugars are metabolized by oral bacteria to acids that demineralize tooth structure. More frequent intake of dietary sugars, such as going to bed with a bottle and having regular sugary drinks or snacks between meals, is an important risk factor for caries. Practitioners identify this factor and others that put the child at risk and formulate individualized strategies the family can use to prevent ECC from developing.

IOH also begins the association between the dentist and family, which is termed the dental home. Even when done by the PCP, a well-functioning IOH system should not only assess the child's oral health during well-child visits, but also include a pediatric dentist as the source of treatment when advanced behavior guidance techniques, such as sedation or general anesthesia, are needed to accomplish treatment.

OBSTACLES TO ACCEPTANCE

During the well-child visit, PCPs are generally charged with covering more than 50 policies containing 192 health directives in about 20 minutes. As a result, the addition of oral health assessment is made only when the clinic or practice has made it a priority. Many pediatricians view dental health as a low-priority item and prefer to have dentists address it. Lack of oral health training during medical school, lack of reimbursement for the time spent, and untrained auxiliary staff also serve as obstacles to the institution of IOH during the well-child visit.

For dental practitioners, similar obstacles exist, including lack of IOH training in dental school, inadequate reimbursement by payers, disruption of the normal practice pattern, and a culture of practice where infants are seldom seen. Often dentists and PCPs only offer IOH in the context of an organized promotion, generally motivated by state departments of health, accountable care organizations, payers, or health coalitions.