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Review Article

Infant oral health care: a review on parent's role in infant oral health

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ABSTRACT

The maintenance and prevention of oral health is one of major concern of parents. Dental caries is one of most common oral manifestation because of lack of knowledge and improper techniques. The first visit should be planned at early ages only so that proper guidance and knowledge should be imparted to the parent to prevent oral diseases. The first visit should include oral screening, oral habit monitoring, Brushing technique demonstration and fluoride application if needed. There should be more involvement to strengthen the role of pediatricians' in children's oral health requires an understanding of their current knowledge and practice. In this scoping review, we aimed to comprehensively map what is known about the knowledge and practice of parents regarding children's oral health.

Keywords: Infants, Dental home, Early childhood caries, Infant oral health, Teething

INTRODUCTION

Oral health is an important aspect and integral element of children's overall health. A statement was acknowledged by the American academy of pediatric dentistry (AAPD) that infant oral health is one of the foundations upon that preventable education and dental care must be engineered to boost the chance for an oral disease free life.[1] Croll explained the traditional view of dental care incorporated somewhere between the age group of 2-3 years. Moreover, numerous dental considerations, such as oral lesions, oral trauma, or habits which will need treatment and/or consultation, may arise during the first two years of the child's life.[2] For these reasons, skilled dental health care ought to begin during the infant period and not at the age of three years.

Infancy can be defined as the first year of life after birth and a newborn child is called an infant from birth till the completion of the first year of life. Within the initial half of infancy, the oral cavity has gum pads alone and towards the latter half there is the eruption of primary teeth within the mouth. Preventive oral care in infancy forms the basis of future oral health. Infant oral health is the foundation upon which education and concerning dental hygiene and different preventive dental care must be incorporated on, to enhance the prospect of a lifetime free of preventable dental diseases. Infant oral health is an integral part of general well-being of an infant, as he or she increases in age.[3]

In 1986, the AAPD designed the concept of the first infant oral health-care policy statement approach. It has been 25 years since the inception of this policy.[4] Prevention is the foremost initial approach of infant oral health care and prevention of dental diseases ought to be initiated in infancy itself. For diseases encountered initially such as early childhood caries (ECC) prevention of diseases and the promotion of healthy behaviour among parents/caregivers must be given importance.[5]

This paper collectively reviews the guidelines adopted for infant oral health and the role of the parents and dental health-care professional in achieving the goals of infant oral health.

METHODS

This paper reviews the current literature from the year 1984 to 2020. An electronic literature search was made in MEDLINE/PubMed, EBSCO host, and Google Scholar databases. MeSH terms used were: teething, infant oral care, first dental visit, pediatric approach of oral health care etc. The data was also compiled manually from comprehensive textbooks. Some recommendations were also acknowledged on the opinion of experienced researchers and clinicians.

RECOMMENDATION FOR PEDIATRIC DENTIST FOR INFANT ORAL HEALTH ACCORDING TO AMERICAN ACADEMY

Oral health risk assessment

Oral health risk assessment should be initiated to an infant by 6 months of age by primary health−care provider or by a qualified health−care provider. Such an assessment should include the education on infant oral health, evaluation and optimization of fluoride exposure, and assessment of the patient's risk of developing oral diseases of soft and hard tissues.[6]

Poor infant oral health risk factors

Evidence suggests that early-in-life risk factors play a major role as predictors of future dental caries in children. These risk factors embody the extent of parental knowledge, attitude and practices (KAP) and an infant's oral hygiene status, medical history, oral medications and feeding habits.

A major factor issue causative to poor infant oral health is lack of proper KAP related to infant feeding practices and oral care.[7]

Lower socio economic status has conjointly correlated to a low dental KAP.[8] The group of parents do not have proper connection with lack of dental KAP, with different studies reporting varying results.[9] Despite good dental care and intensive prevention, poorer dental health has been incorporated in children with CHD than in healthy children.[10] Medically compromised children also render poor oral hygiene since in the presence of life threatening conditions, oral hygiene takes on low priority. Medical health problems and long term medication for it, is another risk issue for poor infant oral health.[11]

Consequences of poor infant oral health

Dental caries remains the foremost most common widespread chronic disease of childhood and can have severe ill effects on growth and development when it progresses further. Early childhood caries is a disease with its etiologic factors playing a role from infancy itself. Low-income and minority children experience exceptionally more dental caries than other groups because of their additional barriers, including limited access to dental services.[12-14]

RECOMMENDATIONS FOR THE INFANT'S ORAL HEALTH

Caries-risk assessment

Risk assessment procedures employed in practice usually have sufficient knowledge to accurately quantify a person's sickness condition and permit for preventive measures. It helps out to give description of the disease and its treatment outcome to the patients and aids in individualizing preventive discussions; individualizes, selects, and determines frequency of preventive and restorative treatment for a patient; and anticipates caries progression or stabilization.[15]

Establishment of a dental home

The American dental association, AAPD and AAP recommend that all children have their first preventive dental visit and establishment of a dental home by age 1 year.[16-18] The term "dental home" was coined by Nowak. Dental home is a concept where a healthy relationship is established between patient, parents and the dentist in a friendly manner.[19] The concept of dental home should be incorporated by parents by 12 months of age. The first visit should include patient thorough history, his family detailing, medical and dental history, a thorough oral examination, tooth brushing demonstration, and prophylaxis and fluoride varnish treatment if indicated.[20]

Teething

The tooth eruption is one of important event in child's life and their parents. Teething was coined from a Latin term "Dentitio difficili" which means difficult dentition. It can cause a series of discomfort to the patient which includes localized discomfort in the area of erupting primary teeth, inflammation, pain, general irritability, disturbed sleep etc.

There are several measures to subside the discomfort while teething which includes: teething rings (chilled), pacifier (even frozen), frozen items, and rubbing of gums with clean finger, cool spoon and wet gauze.[21]

Oral hygiene

Oral hygiene measures should be implemented no later than after the birth, cleansing the gum pad with a wet cotton and after the time of eruption of the first primary tooth.

The oral care should be initiated by cleansing of gum pads, then after tooth brushing with a proper technique twice daily by parent or under their guidance. Flossing should be initiated when adjacent tooth surfaces cannot be cleansed with a toothbrush.[22]

Diet counselling

At the first dental visit proper diet inspection of the child should be performed which includes diet taken, its frequency, its quantity, amount of sugar intake and frequency of snacking etc.[23] Breast milk is rich source of ample amount of nutrients which are essential for child development. It general health, nutritional, developmental, advantages while significantly decreasing risk for a large number of acute and chronic diseases. The frequency of Breastfeeding >7 times daily after 12 months of age leads to increased risk for ECC.[24] The consumption of 4-6 ounces of fruit juice per day is only recommended by American academy of pediatrics.[25]

Fluoride

The ample quantity of fluoride intake is important to all infants and children. Decisions concerning the administration of fluoride are based on the unique needs of each patient. The use of fluoride for the prevention and control of caries is documented to be both safe and effective.[26]

The children of age 2 years should be advised use of fluoridated toothpaste and its quantity is increased upto age of 5 years. In children having greater risk of caries fluoride varnish is advocated. [27-29] The area having fluoride content <0.6 ppm is advised to have systemically-administered fluoride to reduce the risk of caries.[30]

Injury protection

Practitioners should provide age‐appropriate injury prevention counselling for orofacial trauma. Initially, discussions would include play objects, pacifiers, car seats, and electric cords. The use of properly fitted mouth guards in other organized sporting activities that carry the risk of orofacial injury should be mandatory.[20]

Non-nutritive habits

Nonnutritive oral habits (e.g. digit or pacifier sucking, bruxism, and abnormal tongue thrust) may apply forces to teeth and dentoalveolar structures. It is important to discuss the need for early sucking and the need to wean infants from these habits before malocclusion or skeletal dysplasias occur.[20]

AMERICAN ACADEMY OF PEDIATRIC OFFERS RECOMMENDATIONS FOR PEDIATRICIANS IN PREVENTIVE ORAL HEALTH

AAP recommends adding a module on oral health and dental care dental professionals providing instructions to enhance acquisition of hands‐on skills and could encourage future professional collaboration and cross‐referrals.[31]

Pediatricians will require current information and guidelines on preventive dental care to guide pediatricians in the promotion of oral health in their practices.[31]

Pediatricians must be ensured that all of their patients, receive timely preventive and restorative dental care.[31]

Pediatricians will require sufficient resources to successfully assume greater involvement in oral health‐related activities.[31]

CONCLUSION

Infant oral health forms the basis of a lifetime of good oral health. The primary focus of infant oral health is prevention and every effort must be made to prevent and promote oral health at this crucial stage of infancy. By examining the infant for oral problems and by providing early preventive counseling, it is possible to prevent many forms of dental disease and thus promote the total health of child patients.

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