

Oral Health and Malnutrition among Children

By Dr. Shivani

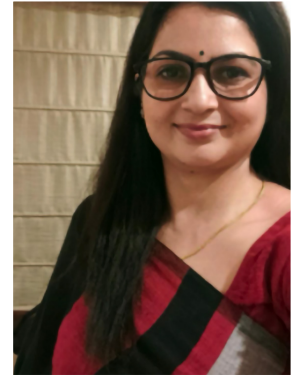
BDS, Oral and Dental Surgeon, Lucknow

Oral diseases are a major health concern in children. Specifically, dental caries is the most common chronic disease during childhood. Poor oral health leads to pain, lack of sleep and inability to chew. As a result, a child often misses school and other outdoor activities. Malnutrition has multiple effects on oral and dental tissues. Nearly one-third (31.4%) of Indian children between one to five years of age will be stunted by 2022, due to acute malnutrition (Global Nutrition Report 2021). Malnutrition and infection are closely linked as infection aggravates malnutrition and malnutrition abets infection. Malnourished children have higher prevalence of enamel hypoplasia (hypomineralized enamel) leading to early dental caries. Nutritional deficiencies also affect oral mucosa. The most commonly seen oral lesions among children are inflamed/fissured tongue (Iron and Vit. B2/B3 deficiency), mouth ulcers, cracked lips and inflammation in corners of the mouth (Vit. B1 & B12 deficiency), gum diseases/periodontitis (Vit. A, C and B6 deficiency). Calcium and Vit. D/K1 deficiency leads to poor jaw development and delayed eruption of teeth resulting in cosmetic disfigurement during adulthood. It not only affects phonetics and chewing but also leads to lowered self-esteem among children.

Tooth decay is an infectious transmissible disease. An infected or abscessed primary tooth can transfer the infection to the developing permanent tooth as well as other areas of the child's body and the brain. Low fat or lipid deficient diet is highly associated with pathologies of salivary glands. Foods retained on tooth surfaces increase acid production. Saliva prevents intra-oral reduction of pH (buffering) and also assists in removal of cariogenic bacteria from the oral cavity. Salivary hypofunction can also cause dry mouth, gingivitis, difficulty in swallowing, halitosis (bad breath), and difficulty in speech.

Healthy milk teeth are important for mastication so that essential nutrients are properly digested and absorbed by the gastro-intestinal tract. Thus, good oral health is directly linked to proper growth and development of children. Only nine percent of infants in India (6 to 24 months of age) received proper nutrition (Niti Ayog 2022). First tooth erupts between the ages of six to eight months. A 2016 Lancet study has shown that breastfeeding up to 12 months can ward off baby-bottle caries in a child. Adequate nutrition during pregnancy can prevent developmental anomalies in the infants' teeth. Parenting plays an important role in providing a balanced diet (unprocessed, less sugary, less sticky & less acidic) and promoting good oral hygiene among children. Night time brushing, dental flossing and tongue cleaning should be incorporated into a child's daily oral hygiene routine. Other factors contributing to good oral health among children are fluoride intake, use of dental sealants and frequent visits to the dentist. Apart from this, macro level factors such as lowered per capita availability of food, inequality, gender bias, wastage of food, and increased export of food grains has contributed to increased malnutrition among poor and marginalized population group.

In India, oral health needs a perception change and a comprehensive strategy to bring it to the forefront of other health issues. Programmatic interventions should be strengthened in four key areas of women's and child health - supplementary food, awareness about health and nutrition, regular health check-ups, and child-specific services. Delivery of oral health services must be shifted



from a dentist-centered system towards a community-centered system so that primary causes of poor oral health among children can be recognised in a timely manner. Rather than focusing on disease management, a

prevention-oriented primary care model of oral health must be considered to achieve good overall health and well-being of our children.

Experts View

Tribal Education: What We Think - What They Need

Prof. S. Bhagwan Roy

Founder Chairman, Indian Institute of Bio- Social Research and Development (IBRAD)

Early childhood is the most significant milestone of mental and emotional growth of children. What children see, listen to, feel and experience shapes their future. Tribal children are brought up in the forest villages in the background of tribal rituals, ceremonies, and various activities of communities around them. But those of us who are brought up in an urban educated world have a perception, meaning and purpose of education and grooming. The process of education as a system varies from culture to culture and context (time and space). The government with good intention establishes schools and appoints teachers for teaching the tribal children. But the tribal children have their own cultural mindset, traditions and aspirations to meet their immediate need for livelihoods in their own natural environment. The children of the particular vulnerable tribal group (PVTGs) are deprived of many goods and services, which has resulted in their economic losses, pre-agricultural level of technology, and declining population with a low level of literacy in comparison to others. Their literacy level is far from reasonable than the non-tribal.

The tribal children wake up with cock's crow and join their parents in forests or farms or tending the livestock. The children pluck leaves, collect the non-timber forest products and help their families as well as communities in many activities for subsistence. Neither parents nor children consider school-going as a dignified act in their society. The tribal

children in the school do not feel comfortable with the non-tribals. Rather, the children enjoy working with their parents.

It requires competent educators who can help tribal children of different cultural backgrounds, languages, beliefs. Shaping their naturally acquired art of expressions, engaging with their aspirations and working with traditions in order to fulfill their requirements of subsistence is important. The teaching methods, curriculum and timings have to suit the crop calendars and seasonal variations of the tribal ecosystem and traditional practices of livelihoods.

