

Oral Health: Current Status and Emerging Challenges

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Short Communication

Oral health is associated with several of the underlying health conditions and is variable across age, and physiological groups. The rate of aging is increasing at an unprecedented rate in the current century and is set to increase in the future. Even though the life expectancy of human being has been increasing, there has been concomitant rise in the chronic degenerative diseases [1]. Pathological conditions of such diseases have certain consequence in the oral health status of populations. With higher age, the oral health problems are also expected to increase. Some of the most common oral health problems among the geriatric populations include dental caries, periodontitis, dry mouth with reduced salivary secretion, and mucosal lesions caused by candida fungal infections. One of the most prevalent oral health issues is the occurrence of dental caries among older adults. The number of decayed tooth and consequently, the number of filled dental corona is also high. In developing countries the situation is much worse but due to lack of availability of the reliable data, the oral disease prevalence levels are much underestimated. Similarly, the periodontitis ranging from moderate to severe is highly prevalent across the older population some times as high as ninety percent. Decreased salivary gland secretion can result in difficulty of swallowing, and halitosis. Inflammation of the parotid and the mucosa also adds to the halitosis [2]. Some of the other forms of oral health issues among aged populations include cancer, denture related lesions, stomatitis, angular cheilitis, oral ulcers and hyperplasia. These disorders can lead to orofacial discomfort and can reduce the quality of life. The occurrence of dementia and other forms of cognitive disabilities in the older population further aggravates the problems and leads to higher risk of oral health problems. On the other hand the loss of tooth and periodontitis can function as the risk factors for cognitive decline due to lowered nutritional status. Therefore, there is mutual link between the overall health status of the older individual and their oral health and hygiene. Compromised oral health is more likely to develop cognitive decline among the geriatric population and therefore can be one of the risk factors for cognitive decline [3].

One of the recent reports based on the clinical trials, laboratory studies and reviews has claimed that there is strong correlation between the oral health status and the oral diversity of the microflora with pneumonia caused by bacteria among hospitalized patients [4]. The surfaces of the teeth and the dentures are stubborn on which oral biofilms or dental plaques form. These dental plaques are susceptible to colonization by respiratory pathogens which migrate to lower respiratory airway developing the risk of lung infection. Infection in the inflamed periodontal tissue and extension to the lower respiratory tract lead to lung infection. Oral interventions that are aimed at controlling and reducing the oral biofilms also reduce the risk of bacterial nosocomial pneumonia among high risk populations. Substantial evidence suggests that improvement in the oral hygiene prevents the occurrence of pneumonia among vulnerable populations including aging populations. Therefore, it is essential for doctors and nurses to focus on the preventive dental care as it plays a significant role in prevention of serious lung infection [5].

Generally brushing of teeth is very common among populations but the use of dental floss is very uncommon across populations. Adequate

tooth brushing is positively associated with health knowledge, non-smoking population, and number of preventive dental visits. Multiple oral health issues are associated with young age, smoking, avoidance of dental visits, and lack of brushing of teeth [6]. Therefore regular practice of oral hygiene habits and preventive dental health checkup can reduced the risk of oral and dental health problems. Even though there is a strong will to maintain oral health and most of people visiting the preventive health checkup for improvement of the oral health and also have been performing regular self-examination of oral health status and practicing regular tooth brushing, very less percentage regularly cleaned the inter-proximal areas. Thus there is a need to higher level of oral health care including the use of toothpaste and dental floss. Though manual toothbrush was used regularly, and the use of mouthwash is also raising the usage of interproximal aids was very less among populations [7].

The prevalence of diabetes has been rising all across the world. The current global prevalence of diabetes is 8.5% and is now termed as a major public health concern. The trend of diabetes prevalence is increasing. High glucose level in the blood leads to several other comorbidities such as cardiovascular disease and repeated infections. Diabetes patients are more susceptible to oral health issues and are vulnerable to carious lesions, dry mouth, frequent infection of oral cavity, periodontal infections, and other salivary gland problems [8].

The most frequently encountered oral health problems among diabetic patients include periodontal disease, loss of the connective tissue and inflammation of the gums [9]. The association of oral and health and the diabetic condition is bidirectional. Another study concluded that the periodontitis and the tooth-loss were positively associated whereas tooth brushing was negatively associated with fasting glucose level which indicates that improving the oral hygiene can potentially lead to better glycemic control. In modern times the prevalence of hypertension is also substantially increasing and is expected to exceed 1.6 billion by the year 2025. Some studies have reported association between oral hygiene and risk of hypertension. Recent studies have also linked the loss of tooth with risk of hypertension.

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