

A Portrayal of Changing Oral Condition in Today's World: A Review

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Abstract

We cannot solve our problems with the same thinking we used when we created them—as stated by Sir Albert Einstein. Today's diverse change in the oral condition of the patient needs meticulous understanding by the dentist of the underlying problem and how to solve it in stipulated time, money, environmental and social condition of the patient. Health care systems worldwide deliver services for diseased and drug addicts but most lack oral health care services. Lack of appropriate settings, valid assessment protocol for conducting oral health studies, and poor collaboration between dental and general health care sectors for the diseased and drug addicts is interfering terribly with the accurate picture of today's situation. Moreover, lack of appropriate policies to improve access to dental services, lack of interest among dental professionals in treating the diseased and addicted persons, and low demand for dental care from these sections is leading to today's ineffective all-around dental treatment.

Keywords: Oral Health, Oral Hygiene, Oral Diseases, Health Policy.

Introduction

The later part of the twentieth century saw a massive transformation in oral health. The dramatic advancement in the medical field during the last five decades resulted in more number of medicated elderly persons and drug-addicted youngsters. Though there are remarkable achievements in recent decades in the health sector, millions of people worldwide have been excluded from the benefits of socio-economic development and the scientific advances that have improved healthcare and quality of life. Systems are becoming more complex and people's expectation of oral care is changing dramatically. In developing countries growing number

of development organizations, private foundations, and non-governmental organizations are becoming active in the oral health sector.¹

Diseases Affecting Oral Condition: Prevalent diseases previously are majorly modulated by the present day's food habits, stress, environmental conditions, bad oral habits of chewing tobacco, smoking, etc. The common diseases which affect oral cavity and treatment are Diabetes, Arthritis, Anaemia, Tuberculosis, Leukoplakia, Syphilis, Bell's Palsy, Parkinson's disease, Plummer Vinson's disease, Pemphigus, Nicotinic stomatitis, cleidocranial dysostosis, ectodermal dysplasia, lupus erythematosus, radiation, hypertension, heart disease, kidney dysfunction, thyroid diseases, menopause, epilepsy, etc.²

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Medications affecting the population: Nowadays because of the invention of newer drugs and newer treatment modalities most dental patients are taking multiple drugs and have a complicated medical history. As older people are leading a longer more productive life even though having cardiovascular, endocrine,

or degenerative disorders they are more likely to seek dental treatment. These patients are challenges to the dentists nowadays. Alarming studies show that in a normal dental patient population, 43.1% were taking medications. Out of these 17.4% were taking more than 1 medication. • 14.2% takes analgesics eg. Aspirin, Acetaminophen • 12.1% of women at childbearing age take contraceptives. • 9.4% takes antihypertensives, diuretics, etc. eg. Dyazide • 9.4% takes miscellaneous drugs eg. Vitamin, Antacid, Crocin, etc. which can be bought without a prescription. • 7.6% takes psychotherapeutic drugs eg. diazepam, clonazepam • 6.6% takes hormones including insulin, oral contraceptives, Thyroid hormones, and estrogen. • 4.9% takes antibiotics like penicillin, tetracycline, etc. • 3.8% takes antihistaminics which does not need prescription • 3.1% takes heart medicines eg. Digitalis, Nitroglycerin, etc. • 2% of patients were on hypoglycaemic drugs.^{3,4}

Drug affecting the population: There is a definite increase in the number of people misusing illicit drugs including opiates, cannabis, and heroin. This addiction is leading to a distinctive dental and oral profile which would impose a burden of a more customized treatment approach by the dentist nowadays. Drug addiction is leading to damage to many parts of the body as an oral cavity, nasal floor, lungs, liver, brain, and heart. Addicts also suffer from physical, psychological, emotional, and behavioral problems. Injection of a drug can have two problems-Firstly repeated use of unsterilized needles leads to HIV/Hepatitis risk. Secondly, the agents used to dilute drugs leading to bacterial endocarditis.⁵

Oral Health Problems Associated with Opiates

The opiates which are generally used are morphine, Heroin, Synthetic Methadone, etc.

With its use in oral cavity presents with

1. Generalized tooth decay, especially on smooth and cervical surfaces, are common.
2. Salivary hypofunction leading to xerostomia.
3. Burning mouth and eating difficulties.
4. Taste impairment.
5. Mucosal infections.
6. Periodontal diseases eg- Adult periodontitis, Necrotising Gingivitis, etc.
7. Bruxism.

8. Candidiasis
9. Mucosal Dysplasia.

Oral health problems associated with cannabis

The cannabis which is generally used is Hashish, Marijuana, etc. With its use oral cavity presents with

- (g) Increased risk of oral cancer
- (h) Dry mouth
- (i) Periodontitis
- (j) Tartar on tooth

Oral health problems associated with stimulants:

The stimulants which are generally used are Cocaine, Amphetamines, Cracked cocaine, etc. Cocaine is different types of damages on the face and oral cavity depending on how the drug is taken. Cocaine itself is very acidic and thus it damages enamel when comes in contact with teeth. With its use oral cavity presents with

- 1 Local application of cocaine leads to gingival recession.
- 2 Bruxism is a very common complication, which simultaneously leads to progressive dental attrition.
- 3 Crack cocaine is the most dangerous as it is smoked. Snorting cocaine leads to damage in tissue in the upper palate leading eventually to the nasal septum perforation, palate perforation, changes in senses of smell, and chronic sinusitis.
- 4 Cocaine also leads to a movement disorder called transient chorea. This is manifested also spasms of muscles of mastication leading to buccolingual dyskinesia, which looks like a strange smile of the patient.
- 5 Methamphetamine abusers show bruxism, xerostomia, and rampant caries leading to a condition called MEETH MOUTH. It is a condition of blackened, stained, rotting, crumbling, and falling apart teeth. It has a distinct pattern and of caries on the buccal and cervical smooth surface of anterior teeth. Since these drugs are stimulants, it causes people to clench & grind their teeth due to stress. The patients who struggle with meth addiction crave sugary foods and drinks which leads to more damage or teeth decay.
6. Amphetamines or so-called CLUB Drugs like ecstasy, ketamine, Molly, MDMA also leads to

similar oral condition. All these stimulant drugs cause dry mouth, dehydration, etc. Furthermore, mucosal involvements such as ulcers, vestibular swelling, edema, and necrosis are reported in ecstasy drug users.^{6,7}

Oral Health Problems Associated With Deaddiction:

- (I) Methadone is a synthetic opioid widely used in the management of opiate addiction has side effects on oral health.
8. Other drugs used during drug addiction treatment are antidepressants (like tricyclics etc), anti-psychotics (like phenothiazines, etc), and anti-anxiety drugs like diazepam. All these drugs have side effects of salivary hypofunction leading to dry mouth and all negative effects of xerostomia like difficulty in chewing, swallowing, tooth decay, and periodontitis. Halitosis is also a very common finding in these patients.⁸

The role of oral health care (OHC) in addiction rehabilitation/Oral health and relapse: During treatment, drug withdrawal may result in dental pain which interferes with treatment procedure and abstinence and may lead to relapse. In a French case-control study of the impact of illicit drugs on oral health and the use of drugs for toothache, 52% of intravenous heroin users and 21% of other illicit drug abusers admitted using drugs as pain-killers. A similar finding on the use of illicit drugs for toothache emerged from another study. Those quitting opiate use, therefore, require special care for pain control, and this should be integrated into their rehabilitation program. These addiction treatment centers which provide OHC seem to be more successful in promoting both the oral and general health of their patients.⁹

Challenges for dental professionals in coping with the changing oral condition: The variable changes that are occurring in the oral condition nowadays require both objective & subjective evaluation. Objective evaluation is done by clinical examination by the dentist and subjective evaluation is done through series of questionnaire or interview, which provides self-perception of patient-related to self know and oral health and its association with occurrence and relapse of addiction, self-conceived barriers to utilize dental service and oral health-related quality of life. Except for cigarettes and alcohol drug abuse was limited to a small

population who tended to be socially disadvantaged. But today drug abuse is evenly distributed across all social strata. There are some barriers to coping with this changing oral condition. They are drug addict's cooperation and compliance in oral health maintenance is not there in most cases. Problems with their long-term follow-up common. The multifactorial and complex nature of drug abuse and addiction behaviors and tendency towards poly-drug abuse among addicts cause difficulties in determining the dependent effects of each group of drugs. Dental professionals also have a negative attitude towards these drug-addicted patients and have an unwillingness to treat them. The addicted patients also have problems with compliances with treatment procedures and fail to accept the suggested treatment plan. Lack of appropriate policies to improve access to oral health services and poor collaboration between dental and general health care sectors serving drug addicts are also an obstacle to effective treatment.¹⁰

Conclusion

Thus today's diverse change in the oral condition of the patients needs meticulous understanding by the dentists of different drug side effects, drug interactions, the underlying progression of the disease, and how to solve all these through patient dental service delivery.

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