

# Community Dentistry

## Programs of public dental care

Lec. 18

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General health care is important for all people; good oral hygiene is a vital aspect of health care, the private practice is notable to meet the dental demands of all people, so a number of public dental health programs have, therefore, developed that aims to meet the need of the specific groups because even within communities that are well served by dentist, there are groups who are not regionally treated in private clinics, these groups are: -

- 1- Handicapped
- 2- School children
- 3- Elderly people
- 4- Mobile clinics

### 1-Handicapped persons: -

Handicapped patient or disability refers to any restriction or lack of ability to perform an activity. A disabled individual is a person who has oral health may be considered within normal range, but who have one or more physical, medical, mental, or emotional problem that which may prevent them from being treated routinely in dental situation and limitation of his ability to function normally in fulfilling the activities of daily living. Disability includes all handicapping conditions or combinations and could be developmental or origin or acquired.

### Classification of disabling conditions: -

- 1- Physical disability such as cerebral palsy
- 2- Mental disability such as Down syndrome and mental retardation.
- 3- Sensory disability like deafness and blindness.
- 4- Medial compromise disability like diabetes and Acquired Immune Deficiency Syndrome (AIDS)

The World Health Organization (WHO) classification of impairment, disability and handicap into seven domains that impact on oral status an individual which included: -

- 1- Functional limitations
- 2- Physical pain
- 3- Psychological discomfort
- 4- Physical disability
- 5- Psychological disability
- 6- Handicap

The oral health may little different between people with disability and normal. Reports show that disabled individuals have tended to have more teeth missing, more untreated decay and fewer teeth restored. Dental care is often generalized as an emergency. With few exceptions, prevention care has not been emphasized in the way it should. The two most important oral health problems among disabled patients are dental caries and periodontal diseases.

#### **1- Physical disability: -**

This condition may affect manual dexterity and arm control and mobility which may influence oral health; these are like arthritis, osteogenesis imperfect and rickets.

#### **2- Mental disability**

Also they have known as people with learning disability. They suffer from dental caries and periodontal diseases like the rest of population leading to tooth loss.

There **are barriers** to dental care for this group of people which are: -

- 1- Oral health may have a low priority in the family.
- 2- Dental care may be restricted by attitudes and access.
- 3- Treatment may be difficult to provide because of fear and anxiety, lack of understanding and inability to cooperate.
- 4- Involuntary movement may restrict oral care of dental treatments.
- 5- Difficulty with communication complicates the situation.

These groups have poor oral plaque control and more periodontal diseases. This is reported in studies of people learning disability in comparing with normal people and they have more teeth extracted.

## **Dental treatment and preventive measure among disable patient (physical and mental disability): -**

There are general ways to promote the oral health of people with disabilities before consideration of specific techniques and modalities of dental care. They include: -

- 1- Prevention and treatment services are the targeted at these patients; topical fluoride applications are indicated in those groups who may be at higher risk of the development of carious lesion.
- 2- Conventional dental treatment may not be appropriate for all patients. For some groups, the only way is with the aid of general anesthesia. For other patients, an alternative approach to managing carious lesion using simple a traumatic restorative technique.
- 3- Dietary consideration for people with disabilities may need to be different. For severely impaired people, food is often liquidized or fed in semi-solid state after mashing. Pureed diets are recommended for cerebral palsy patients who have difficulty in swallowing. Some very disabled children and adults need to take high calorie supplements in order to maintain nutritional status. Liquid oral medicines taken can be damaging the dentition in chronic users. A proper diet is essential to a good preventive program for disable child, to reduce the cariogenic potential it is necessary to;
  - a- Restrict between the meal snacking.
  - b- Limit use of highly cariogenic food.
- 4- A regular mouth cleaning by using fluoride toothpaste was preferable. If the patient will not tolerate the use of the tooth paste; mouth rinse with fluoride (0.2% NaF) can be used as a part of the mouth cleaning routine.

For patient who has difficulty in grasping a conventional tooth brush; he can use a slim-handled brush. Larger handle can make mouth cleaning more easily, many modification resemble a bicycle grip and are made in rubber or plastic to fit over the toothbrush handle. Electric toothbrush are not recommended for those disable individuals due to their increased weight, difficulty in using on/off

switch as well as these device can cause considerable damage to the hard and soft tissue in a short time.

- 5- Immobilizations of uncooperative physical disable patients need papoose board for stabilization of the body, adjustment of the head by head positioner, and strap and tap for extremities.

### **3- Sensory disability: -**

These are blind and deaf people. In communities each state or regions should have health center for these disable persons, training program for handicapped should be established by health center, dental school health departments and they select dentist or dentists to attend that health center for all handicapped groups programs ranging from oral hygiene programs.

The preventive programs for sensory handicapped patients are: -

- 1- Application of topical fluoride and/or fluoride tablets (according to the age of the patients) for the patients attending special school and organization.
- 2- Brushing programs
- 3- Periodontal tissue assessment
- 4- Active dental treatment and may be involved in the construction of mouth health application.
- 5- Chemical plaque control (like CHX).
- 6- Dietary restriction by reducing cariogenic food and snacks.

### **4-medical compromise disability**

Children or persons with medical handicapped fall into two groups:

- 1- Those general health affected if they were to develop dental diseases
- 2- Those whose need for dental care in it, are at risk, example: - persons with cardiovascular disease and leukemia.

The dental caries and missing teeth values are higher in the medical compromise disability than founded in the general population. Preventive strategies that would really benefit for this patients group are often not available on a regular basis.

## **2-School children**

Each school should have a dentist appointed as consultant or local health center and periodic dental examination. The dental health programs should be encouraged by school through programs of education for parents and children.

Preventive programs for school children: -

- 1- The programs should be based on preventive and long term of oral hygiene practice rather than an actual dental treatment in the school.
- 2- School should be encouraged to eliminate sale of candies and sweetening beverage in school.
- 3- Society should be instrumented in helping and establishing of school food and beverage.
- 4- Programs should be contribute to nutrition needs of the child,
- 5- Water fluoridation should be supply to the school
- 6- Fluoride tablets are applied (according to the age of the child).
- 7- Programs and dental inspection and referral programs.
- 8- Topical fluoride applications within the school like rinse programs weekly in the classroom or brushing with fluoride toothpaste for 4-6 min under supervisions.
- 9- Teaching dental health in the classroom by dentist or dental hygienist and motivating children to improve their dental health practice through periodic planning lectures or talk to school children.
- 10- Lecturer teaching in dental health for both teachers and parents of children.

## **4- Elderly people**

The science which deals with old age refers to **Geriatric dentistry** which is a science deal with the diagnosis, management and prevention of all types of oral diseases in the elderly population.

The elderly population can be divided into the following categories: -

- 1- People aged (65-74) years are young elderly who tend to be relatively healthy and active.

- 2- People aged (75- 84) years are the old or mid-old, who vary from those being health and active to those managing an array of chronic diseases.
- 3- People 85 years and older are the oldest old, who tend to be physically frailer.

The mouth and associated structures play an important physiological role in mastication and nutrition, so the systemic benefits of nourishing and well balanced diet contributes to general health and signs of mouth in speech and appearance is neglected aspect in older people.

**The oral effect of aging: -**

There are changes in oral tissue and in surrounding structures which are associated with aging process, the degree of changes depending on a variety of individual factors which are genetic influence, experience of diseases, lifestyle, nutrition and habits.

- 1- Teeth: - the structures of teeth undergo a number of changes like attrition, abrasion, or erosion.
- 2- With age, some gingival shrinkage and loss of periodontal attachment and bony support are expected, but age alone in a healthy adult does not lead to a critical loss of periodontal support.
- 3- Root caries is associated with periodontal disease. The root surfaces become exposed due to gingival recession and these root surfaces can become susceptible to root caries.
- 4- Xerostomia (dry mouth). With increasing age there is a normal physiological reduction in saliva flow which could be due to systemic disease, like diabetes mellitus, Sjörger's syndrome and depression or due to drugs like anti hypertensive drugs or due to radiation.
- 5- Denture related problems like loose denture, Denture stomatitis.

## **Barriers to dental care for elderly patients**

- 1- **Mobility:** - increasing mobility problems with age restrict access to services.
- 2- **Economic resistance:** - cost of dental treatment is the most common reasons for not seeing the dentist.
- 3- **Fear and anxiety:** - previous experiences of dental treatment have negative effect.
- 4- **Believe:** - they believe that teeth lost with age, so the health program for this group should be corrected by visiting homes and institutes for elderly with control and mouth rehabilitation.

## **Preventive and treatment programs for elderly patients**

- 1- The approach to an elderly patient should be with respect because elderly patient have a lack of self-motivation and low self-esteem.
- 2- Elderly patient usually require extensive oral hygiene instruction and supervision with plenty of positive encouragement.
- 3- Avoidance of waiting for long time before the patient enters to the dentist.
- 4- Appointments are best keep short. Elderly patient may have difficulty in swallowing and may tolerate treatment better in an upright position; they may have to be treated in their own wheelchair or a domiciliary setting.
- 5- Oral hygiene assessment.
- 6- Fluoride therapy should be a supplement to ordinary periodontal disease treatment by using toothpaste or mouth rinse or by professional applied agent like NaF, SnF<sub>2</sub>, and APF.
- 7- Smoking cessation.
- 8- Nutrition counseling.
- 9- Address systemic diseases/ condition.
- 10- More frequent dental examinations

## **Domiciliary care (mobile clinics)**

Physical and mental disability or chronic disease may make it difficult or impossible for elderly patients to attend a dental surgery or clinic for their routine or emergence care.

The aim of domiciliary care is to provide comprehensive dental care to patients who are unable to access a dental clinic, surgery or mobile dental

unit for their dental care. However, it is useful to make an initial assessment of a patient's eligibility. The advantage of providing domiciliary care include: -

- 1- Better access to dental care for patient.
- 2- Providing a better understanding of a patient's home/living environment.
- 3- Providing better understanding of patient's ability to carry out oral hygiene advice.
- 4- Reducing the likelihood of failed appointments.
- 5- Frequently achieving better patient compliance because the patient is usually very appreciative of the individual care provided.
- 6- Providing added interest for the operator.