Dental Health in Pakistan

by

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Dr. Soofi has written on diverse subjects in dentistry. This paper was presented and read by him at the Second Triennial National Conference of Pakistan. The paper presents the views of Dr. Soofi in the field of Dental Health Promotion in Pakistan.—[Editor]

At a time when man is conquering not only his immediate environment but also the outer space and orbit it seems very proper that attention should be devoted to the relative role of dentistry to general health in human body. With these noble thoughts in mind, an expedition of dental health, should be organized because man has always proceeded faster than his own biological changes. Why man cannot rapidly attain this goal?

Health is defined “a state of relative equilibrium of body, form and function which results from its successful dynamic adjustment to forces tending to disturb it”.

Whereas dental health is “to attain and maintain maximum health and function of the masticatory apparatus together with a pleasing aesthetic effects and the ultimate objective of dental health is, the promotion of general health, prevention of systemic diseases and prolongation of health life.” Preventive activities are helpful for the attainment of these objectives. One must remember that our teeth are the marvellous creation of nature, a valuable structure of body, perfect in taste and aesthetics and nothing compares with them in the human machine.

The dental disease is the most common prevalent disorder—the one from which almost every person suffers in some degree from the earliest years onward. It is not a direct killer but it prolongs the ailment and reaps a petty harvest in money, pain, anguish subnormal health, disfigurement and the time lost in industry and national work. There are many types of dental disorders, but the common ones are:

(1) Diseases of the gums (Pyorrhoea)

(2) Dental Caries (Tooth decay).

(3) Malocclusion (Irregular teeth).

The common cause of pyorrhoea is local irritation as a result of poor oral hygiene or formation of tartar bacterial plaque on the surfaces of the teeth. Systemic diseases, avitaminosis, malnutrition, mental tension, mouth breathing, faulty treatment and malocclusion, however, cannot be over-looked. According to my own observations this disorder is a common prevalence in our country. More than ninety per cent of the population is subjected to this disease in some degree from mild gingivitis to chronic suppurative periodontitis which no doubt acts as focal of infection to the systemic diseases in the human body.

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8. The expenses for the establishment of a rational mouth hygiene programme will, of course, vary from school to school. Here I would like to suggest that two schools situated closely can have one clinic in one school the expenses of the clinic can be met out from the medical funds collected along school fees.

9. In the important towns like Lyallpur, Rawalpindi, and Lahore, the West Pakistan Health Department has provided a School Medical Officer, who is responsible to visit all schools in the district, at repeated intervals and check the health of the pupils and the staff of the school. This Medical Officer is often assisted by his Dispenser or staff but in places where the school Medical Officer is not provided, the Mobile Dispensary with the Medical Officer is provided. So this mobile Medical Officer and Dispensary visits all villages in the District on regular intervals and thus provide door to door medical treatment. On a similar scale it is advisable for the Government to provide one School Dental Surgeon who should visit all the Schools in the District. This Dentist can have his Headquarters in the schools of the District Town and can make frequent visits to the various school classes run by the Dental Hygienist.

10. In all the Districts the preventive work on health is attached to the District Health Officer who can also supervise the work of the dental team working under him and thus we can prevent dental caries and gingivitis on an appreciable scale.

In the end I believe if this scheme is carried out by the Government in the next Five Year Plan, this will definitely reduce incidence of major diseases in the country and thus we will be in a position to have a more healthy nation.

The preventive care is important for oral hygiene, but it is unfortunate that the negative aspects are so predominant that most of the people and even the health workers at times ignore the mouth diseases and disorders affect so many people, but it is a common belief that no one dies due to the dental pain or any other dental disorder, but it must be well kept in mind that most of the dental diseases may lead to very serious complications affecting the general health.

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be true that she built our taste preference comfortable to the same pattern. Thus the contemporary passion for hot foods and drinks is no more than psychological conditioning. If cold food were to become the custom of civilised eating there would undoubtedly be a certain shift in the quality of food taken, probably to include more fruits and less fatty foods which become greasy when cold, but it cannot be assumed it would be any the less enjoyed.

Conclusion
I believe that Nature has fashioned our teeth to cope with food either frozen or warmed up to body temperature but not above.
clinic was started in 1905 and complete dental service was extended to the large cities of Sweden in 1912 and School Dental Health Service was included in the age of 15 years. In Stockholm, 65,000 School Children and 7,000 of preschool children received complete treatment through the Public Dental Service. The Red Cross Society has been pursuing dental treatment to the school children for the last 40 years. More than 20,000 were needed by the Public Dental Health Service (in the year 195). 1,100 Dentists are employed by the Public Dental Health Service in addition to 2,000. There shall be a need of over 150 Specialists and 150 Military Service (Dental) Clinic for the further population.

U.S.A.

More than $ 1,500,000 00 is being spent each year for dental care and more than 90,000 Dentists are serving (7). The mean income to a Dental Specialist in USA in 1961 was $22,352 and general practitioner had $14,710 Annually (Dental Times) and Dental Insurance has been carried to 150,000 people and private organization had deficit of $ 290,224.

Dr. Perry, T. Phillips Executive Secretary of the Dental Society of the New York has urged "the Dental and oral care must be a part of all hospital, Medical and Surgical Programme. He called for dentistry to be more strenuously as a Health Service Profession and full fledged member of Health Service, Steam in Preventive Medicine, $35 million had been procured for further Health Profession assistance act H.R. 12 Dental Times.

Chili

8,347,000 people of Chili are entitled to dental care. Dr. Victor, Den-
tal Chairman of Chilian Dental Association remarked 6 million cavities 3 million loss of teeth 96.5% of the children of 12 to 14 years of age showed dental cavities, when 400,000 were examined. The Public Health Service includes the dental service and it employs 2,630 Dentists for 5 million people (D.T.).

Malaya

Dental treatment is provided by 3 Division i.e. —Division I Dental Service, —Division II Dentists and School Dental Nurses. Division I are qualified and Division II are non-qualified which were registered in 1948 and the Divisions II has about 1200. The Federation of Malaya with population of 7,516,000 had 93 Division— I Dental Surgeons and 503 Division II in 1956 a ratio of a Dentists for 12611 people.

A colony of a Singanore has a ratio of one dentist to 3,912 population (Mc, Combie F 1957).

Relation of Dental Health to General Health

The relation of art and science of dental surgery in the sphere of medicine has been the subject of many discourses. Only in comparatively recent times have the Physicians and General Surgeons urged to take a really close interest in diagnostic and therapeutic problems posed by countrymen who have poor general health with bad teeth. To review these problems as a team, the correlation of dental science with systemic system of the body shall prove a boon to the ailing human being. Inspection of the oral cavity is a valuable procedure which deserves a place in every thorough examination. Abnormal changes in the oral tissue frequently provides significant clues to the presence of systemic disease (Perry).
Hunter (1900) was against retaining septic teeth by restorative methods for patients whose general health was poor. He described bacteria connected with tooth has got two methods of conveyance to another part of the body. (a) By going through the elementary tract and its adjoining ducts (b) By transmission through the lymphatic channels or blood stream.

Gram (1951) and Selye (1952-54) considered oral sepsis as "Stressor Agent" in the Rheumatic Disease. Sten (1950) reports that out of 119 cases of toxic rheumatoid arthritis and 61 of chronic Rheumatic 13.45 and 18.03% respectively showed improvement after elimination of focal sepsis. Kersley (1949) while supporting the rheumatic manifestation attributed to sepsis may be altered reaction of Macr-Organism to the invasion by foreign protein. Guyeron Woods (1941) analysed the cases of 562 of Uveitis and obtained the definite evidence of focal infection in 55%. Knapp (1952) considered dental sepsis of major importance of eye diseases. Slocumb et al (1941) reported 80% of chronic glomerulonephritis had chronic infection about teeth, tonsils and sinuses. Okell and Elliott (1935) and Elliott (1939) report 10.9% of gum infected cases had culture of strept: viridens in the blood and percentage rose 75 after extraction of teeth. Wolf (1953) described cases of Menieres disease successfully treated by extraction of teeth. Finizi (1930) described metastatic pulmonary abscess of dental origin, while Barrie and Donaldson (1959) reported two cases of Lung abscess thought to be due to gross oral sepsis. Elliott (1939) reported 13 cases in which valvular infection has followed after bacteriemia. Hobson and Juele Jeuson (1956) considered removal of all the teeth essential for proper treatment of sub-acute bacterial endocarditis. Rushton (1955), Miller, Hedkoff and Okun (1955) and Walsh (1956) all are of the opinion that focal of infection can produce remote lesion in the body. Editorial of (1952) of American Dental Association had made clear about the spread of bacteria through the lymphatics and the blood stream from the oral cavity. Oleming (1953) considered that periodontal infection are more important than pulpless teeth for the focal of sepsis while Esslik (1951) considered that the milk teeth act as focal of sepsis. Sub-acute endocarditis can be attributed to focal of sepsis of dental origin. Streptococcus viridans have been cultured from blood and vegetation in the heart valves. Hill (1964) is of the opinion that streptococcal infection in tonsils and tooth remain active during Rheumatic carditis and extraction or Tonsillectomy should be carried out under cover of antibiotic. He is of the opinion that the sub-acute endocarditis septic foci may be of etiological importance in some cases with heart block of milder grades and in cases with obstinate extra systolic irregularities. In all such cases removal of foci is desirable.

The work of dentistry in Hospitals and other Medical Institutions demonstrate the spiritual affinity that exists between that medical and the dental science. The dental science should not be neglected in an easy way as the emergence of this science is a boon for man kind and to exploit its resources is a pleasure and gain. During my clinical experience of over a span of 12 years I have received several patients of the general nature longing for recovery referred by the Physician and Surgeon for focal sepsis, during my stay as a Dental Surgeon, Civil Hospital, Quetta and the Mayo Hospital, Lahore. The severity of the systemic disease of the body was declined and improved a lot in the treatment after eradication of the focal sepsis in the gums and teeth. I have yet to see another case of heart attack whose oral hygiene is perfect and he is free of pusseeds from the gums. The referred patients are given below.
from the various departments. Whatever the origin may be, teeth and gums received commendable results and attention of the Physician and the patient gained by the removal of foci.

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiac</td>
<td>292</td>
<td>102</td>
<td>394</td>
</tr>
<tr>
<td>Bones and Joints</td>
<td>112</td>
<td>84</td>
<td>196</td>
</tr>
<tr>
<td>Diabetes</td>
<td>105</td>
<td>180</td>
<td>285</td>
</tr>
<tr>
<td>Respiratory</td>
<td>40</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>14</td>
<td>20</td>
<td>34</td>
</tr>
<tr>
<td>Kidney</td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Eye</td>
<td>4</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Fever of unknown origin</td>
<td>42</td>
<td>18</td>
<td>60</td>
</tr>
</tbody>
</table>

Solution to the problems

"Whether the experience is living hell or a pleasure, the keeping of the bad teeth is a hazardous practice even in carefully controlled situations as it has been proved by various workers mentioned above. To achieve this goal, the dental health education is the proper answer and prevention is the real way to control all the diseases of the teeth and of the body. Prevention can be carried out (1) by the public dental health, (2) professional services and (3) by the individual.

The primary need to popularise the profession is the establishment of dental health education programme on provincial basis in both the wings of Pakistan. The educational corps should be so equipped as to carry out the dental health survey in addition to the dental health education in accordance with the modern methods of giving health education to the masses. This is the only way to control dental diseases in the country dramatically for the betterment of the general health. The simple, safe and effective and inexpensive measures should be given to the public, which are suitable in accordance with our own method of food and economy.

The dental health service should be spread all over the country and dental clinics should be attached to each Municipal Hospital, Primary Health Centres, Schools and Colleges, Universities, Police Centres and such other semi-Government Organizations. The social organization like Hilal-i-Ahmer, Maternity and Child, T.B. etc. should also have a Dental Surgeon to help the patients in all the other diseases of the body. Teeth examination should be a part of fitness in the Government service.

The control in the field of dental surgery is a must. The registration of unqualified dentists should be enforced as in medical circles to stop the further growth of this unhealthy process. All the munjan and powder should be banned. If at all, is allowed, it should be formulated under the supervision and guidance of the Teaching Institution or the research scholar of the field. On the personal care the public and the children should be advised (1) brush the teeth regularly or miswak after breakfast and last thing at night, (2) nourishing meals and the balanced diet should be advised and no meals in between the meals should be encouraged, (3) a piece of any fruit and rinse of saline water should be recommended (4) regular visit to the dentist at least after six months should be popularised.

Conclusion: Although my conclusion may be taken slightly yet the relation of many diseases with dental diseases remains true even after thousands of years. The relation of the dental science with the general medicine has been explained. Its check and control is devised and its expenditure in the public health has been explained. The emphasis on the dental health education is being stressed.
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