

## Crossing the Barrier-Imparting Dental Care in a Deaf Patient

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### **ABSTRACT**

As the dentist begins to understand the complexity of each particular form of handicap and its characteristics, he/she is able to plan more efficiently for satisfactory treatment. These form of handicap children are at a greater risk for developing dental diseases, because of the greater neglect or poor oral hygiene and access to routine dental care. Deaf patients in particular often fail to obtain needed care because of communication difficulties experienced in the treatment situations.

### **KEYWORDS**

Deaf; Dental care; Handicapped

### **1. INTRODUCTION**

Hearing deficient refers to a condition in which individuals are fully or partially unable to detect some frequencies of sound that are heard by normal people. The incidence of hearing impairment worldwide is 1-2 per 1000 newborns [1]. Handicapped persons like with auditory deficit are at a greater risk for dental diseases because of the greater neglect, poor oral hygiene and access to routine dental care. As the dentist begins to understand the problems encountered with these type of the patient, they begin to understand the complexity and characteristic of each these patient's so they are able to plan and execute their treatment more efficiently and effectively.

Deaf patients are at a risk of having problems due to the inability to be educated and communicated from the dental personnel. A hearing impairment primarily influences communication, on which it can have a devastating effect.

The extent of the abnormality may depend on the age of

onset, training and acceptance [2]. Dentist needs to be sensitive to non-verbal communication such as facial expressions, postures and movements as a means of conveying feelings [3]. About one in 600 neonates have a congenital hearing loss. It can result from prenatal and post natal infections, anoxia, prematurity, exposure to ototoxic agents, and trauma. As the degree of loss increases, psychological, emotional and social disturbances generally become more pronounced. Hearing impairment primarily influences communication which is a devastating effect.

It has been reported; a dental treatment is the greatest unattended health need of the disabled [4]. Due to communication problems, it not only becomes very difficult for a deaf and mute child to approach the dental health care provider but they find themselves helpless in recording a proper history and explaining the treatment plan to these patients. However, by being prepared, and by

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preparing the patient, health workers can ensure good communication thereby giving patients access to appropriate and effective health care.

## **2. THE DEAF CHILD AND DENTIST**

A deaf child does not develop in the same manner as a normal, hearing child. Therefore, the child should not be viewed as being like everyone else, except that he/she has impaired hearing. This is because deafness has definite and unique consequences on the personality of a developing child, resulting from difficulty in communicating with others. Therefore, the widely held belief is that in overcoming obstacles to communication lies the solution to the problem of the deaf, both as a means of lessening the susceptibility to maladjustment and in aiding the child in the developmental process.

## **3. DENTAL APPOINTMENTS**

The dentist who is aware of this total dependence of the deaf child on his parent should include parents initially. Then when an aura of confidence has been reached with both parent and child, the dentist can attempt to gradually wean the child from his parent.

The parent in the initial enquiry should usually elicit the presence of a child's hearing disability. A complete medical history should be taken from the parent. Ideally, this should be obtained prior to the child's first appointment. One reason is that extended appointments quite often cause needless restlessness, leading to an increase in apprehension.

Prior to the deaf patient's initial visit, the parent should meet or talk with the dentist so that he can explain exactly what will transpire. The parent should be instructed on the positive methods of preparing the child for his/her first dental visit. Visual aids, such as a record file of pre-post treatment or a child's book descriptive of the first dental visits, are helpful in painting a realistic picture. There is a real incentive for a deaf child to try emulating his siblings,

and to succeed in the same thing that he sees them accomplishing. When such a familial relationship exists, the deaf child should observe his brother's or sister's behavior during a dental procedure, in hopes that he will duplicate it.

If possible the dental appointments should be scheduled so that the patient spends little time in waiting room. The child is seated in the dental chair and the dentist, assistant, and parent are all positioned in order that the patient can easily view them. The parent is visible for interpretation and reassurance. However, the dentist and professionals can easily convey ideas to the deaf through gestures, facial expressions, and slow pronunciation of words. All children like body contact such as pat on shoulder or handshaking, as positive reinforcement for good performance, the deaf child is no exception. Once a good rapport has been gained between the patient and the dentist, the child gains a sense of security and confidence, causing a decrease in the importance of parents' presence. Eventually, as successive visits continue, the child will gain a sense of independence and often willfully desires the patient to remain in the waiting room.

Unfortunately in many instances, dentist should demonstrate for the deaf child all the instruments and equipment, that is, the air, water spray, the moving tooth brush the pliers etc.

He should emphasize on the vibrations of the equipment which the child will feel, and explain that this is normal and to be expected in the dental office. The deaf child is specially fearful of the unknown, therefore using the maximum number of demonstrations and explanations will be most beneficial.

The actual dental treatment for a deaf child closely parallels that performed with hearing in children. An extensive preventive program should be initiated, as deaf child often exhibit poor oral hygiene. The significance of

daily home care measures and importance of their part in maintaining them should be emphasized to the parents.

#### **4. ROLE OF PARENTS**

The first interpreters in the life of a deaf child are the parents. Parents are significantly the controlling influence on the psychological adjustment of their children. If the parents accept their child's deafness and realistically try to understand and interpret it, the child is more likely to accept and adjust to deafness constructively. Unfortunately, in sharp contrast to this are the parents who magnify the implications of their child's deafness. They view deafness as almost totally debilitating and react by smothering protection.

#### **5. DISCUSSION**

##### *5.1 Dental considerations*

It is of a great importance that the health care professional, especially the dentist, has a good communication with the patient that allows him to review all the information about his physical, mental, social and environmental state. The situation that arises from the handicap (auditory deficit) not only affects the oral health but also the general health of the individual the knowledge of the patient's limitations of the vital importance.

The features of these patients are very much comparable to the rest of the individuals. Alterations in the hard tissue of oral cavity of individual can be seen in the form of enamel hypoplasia and dental demineralization an increase in the incidence of bruxism especially in the deaf patient is seen arising during periods of initiatively so as to fill the sensory vacuum.

It has been recognized that deaf population is at a risk of receiving inadequate health care and health related information because of the limitations between the deaf person and health care provider. One of the greatest problem encountered with these patients is their inability to express complains, as the majority of these patients

have poor verbal skills and restrict their ability to communicate and convey their needs effectively.

##### *5.2 Mode of communication in deaf and hard of hearing people*

Numerous methods have become available to enable the hearing-impaired to function in a normal way sidelining there disability. Most of the individuals with this kind of impairment rely wholly or partly on lip reading along with sign language, finger spelling etc. Few aids like hearing aids, induction loops, and infra-red systems are available for individuals with some hearing loss and, for telephone communication, text-phones, type-talk system are available. End number of suggestions have been put forward as to the management of hearing impaired patients including simple measures such as not calling the patient from the waiting room solely by using verbal means, but using others means like sign posters, brochures and picture can be used to explain a procedure.

Provide multiple aids of communication - setting up an appointment via email/instant image service on the website. They can be provided with their all phone number so that they may text in case of after home emergencies

Use visual aids as much as possible- description of various common procedures, with illustrations can be made available and in printed form. Before and after procedure photos for your deaf patients can be used along with non-verbal, graphic explanation of treatment and procedure to make sure that deaf patients are fully informed.

Be sensitive to the patients while working- these people may not pick up ones such as sound of air-rotor when a procedure is about to start. Also deaf people are sensitive to vibration, so needed care has to be taken.

The explanation given above for the handling of the deaf patient given here insufficient, as every patient presents to clinic is different, so treatment of these patient should be personalized.

## **6. CONCLUSION**

Knowledge of the etiology and consequences of deafness is invaluable to the dentist administering dental care to the deaf child. The practitioner must be aware of the psychological aspects of the child's handicap and the strong dependence that the child has on the parent. When the dentist understands these aspects, he will be attuned to the situation facing him, and will more readily be able to

close the communication gap between the patient and him. Once this occurs and complete confidence is gained by the patient, the dentist will discover.

## **7. CONFLICT OF INTEREST**

The authors have disclosed no potential conflicts of interest.

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