

# Role of Sign Language in Oral Health Education: A Review

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## Abstract

Hearing and speech impaired patients are often illiterate; and communicate using Sign Language; which hinders dental care and causes increased levels of oral morbidity; followed by feeling of unfairness by the dental staff. It is very difficult for dentists to communicate and treat them. A dentist who has learned Sign Language can help understand and communicate with these patients and treat them effectively. This review aims to study the need of dentists to learn sign language to communicate with such patients for effective diagnosis, treatment, and even oral health education. If oral health education such as oral cancer and other oral diseases is given in sign language too, it will surely contribute in the prevention of various diseases.

**Keywords:** Communication methods, deaf, dental care, mute, oral health, sign language

## INTRODUCTION

Dentistry is a vast field catering to different kinds of oral health-care needs. However, this field does not shed enough light on the group of people who are slightly different. Our profession has not yet fully developed for people who suffer from hearing or speech impairment, which could be congenital or acquired. According to WHO (2018) data, the prevalence of hearing impairment in India is around 6.3% (63 million people suffering from significant auditory loss).<sup>[1]</sup>

Persons with hearing loss may avoid contacts with health-care personnel owing to communication problems.<sup>[2]</sup>

This could result in poor oral health. Moreover, such people face more difficulty accessing health information than hearing people. Deaf Sign Language users do not have access to incidentally occurring information about health issues in tramways, or on the radio or TV, and there is a general lack of health information and education materials provided in Sign Language.<sup>[3]</sup>

In the regular dental curriculum, dental students do not learn about how to manage deaf and/or mute patients effectively. Furthermore, dentists working in a fully established dental setting also do not know how to use Sign Language with such a group.<sup>[4]</sup>

This review aims at highlighting the need for smooth nonverbal communication which can largely benefit the specially challenged crowd health-wise.

## REVIEW OF LITERATURE

Gupta *et al.* evaluated different visual methods to enhance communication skills between dental care providers and speech and hearing-impaired patients.<sup>[5]</sup>

Jain *et al.* described the need for non-verbal methods of communication such as the use of different signs and gestures in dentistry.<sup>[6]</sup>

Jones and Cumberbatch introduced mandatory teaching of sign language to undergraduate dental students at the University of the West Indies, Jamaica, to bridge the communication gap between dentists and their patients.<sup>[7]</sup>

## EXISTING COMMUNICATION METHODS USED BY SUCH PATIENTS

The common methods used by the dentists and the patients currently include:

1. Lip reading: This method includes the understanding of

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the words and sentences through the lip patterns of the patients. The major disadvantage is that it is tiresome, requires concentration, and it becomes tedious to understand similar lip patterns<sup>[8]</sup>

2. Finger spelling: This method is inclusive of 26 different hand positions representing 26 letters of an alphabet
3. Written information: This involves the use of a pen and paper<sup>[8]</sup>
4. Cued speech: This method involves eight hand shapes in four different placements near the face in combination with the mouth movements.<sup>[8]</sup>

## POINTS TO BE CONSIDERED WHILE TREATING SUCH PATIENTS

Following are the points that should be taken into consideration for smooth, hassle-free treatment in a clinical setting:<sup>[8]</sup>

- I. Be patient.
- II. Take the time to communicate properly.
- III. Position yourself with your face to the light so you can be seen clearly and face the patient so they can read your lips.
- IV. Wear a clear face shield to facilitate lip reading
- V. Minimize background noise, distractions, and interruptions.
- VI. Allow extra time for the person to respond.
- VII. If what you say is not understood, do not keep repeating it. Try saying it in a different way instead
- VIII. Speak clearly but not too slowly; do not exaggerate your lip movements, and use natural facial expressions and gestures.
- IX. Check that the person you are talking to can follow you.
- X. Avoid jargon and unfamiliar abbreviations.
- XI. Resist the urge to shout.
- XII. Lower the pitch of your voice as people lose high pitch hearing first.
- XIII. Use gestures for visual feedback, such as a thumbs up for “you are doing well”.
- XIV. Be prepared to write down what you have to say or have preprepared written prompts to save time.

## SIGN LANGUAGE

Sign Language is a language that uses the visual-manual modality to convey meaning. It can be expressed through manual articulations as well as nonmanual elements. This language is not only used by people who are deaf but also by those who are nonverbal due to conditions such as Down’s syndrome, autism, cerebral palsy, trauma, and brain disorders or speech disorders.<sup>[9,10]</sup>

## THE NEED FOR SIGN LANGUAGE IN DENTAL PRACTICE

It is not as simple as it seems when it comes to the treatment of oral problems for such patients, and this goes both ways. Patients cannot maintain proper oral hygiene due to their

low ability of muscle movement, muscle weakness, lack of muscle movement, inability to express their complaint to the dentists, and the patient needs to be accompanied by a relative. Dentists find it difficult to understand their oral health issues and treat them due to the lack of training in interpreting sign language.<sup>[11]</sup>

We need proper communication grounds for such patients so that there is:

- i. Increased efficiency and more accurate diagnosis
- ii. Explain the treatment plan by using some newly devised signs and gestures related to dentistry, which are easy to learn and understand both by the hearing-impaired patients and the dentists
- iii. Improved patient outcomes and satisfaction
- iv. Less likelihood of complaints or litigation.<sup>[12]</sup>

## FUTURE NEED FOR DIGITAL DEVICE AND ITS SCOPE

There is a substantial increase in technological advancement in the recent years, and this can be used to convey sign language too. Since smartphones are now not only easily affordable but are also used by the majority, a mobile application can be installed that contains:

1. Symbols and signs displaying chief complaints
2. Different languages displaying written chief complaints that the dentists usually look for.

This could help the patients communicate with dentists just by clicking on the pictures of the signs displayed on the screen. It could also benefit the dentists to communicate with patients who do not have a smartphone.<sup>[12]</sup>

## CONCLUSION

The communication and the treatment modalities are different for the hearing and speech impaired patients and require patience and dedication to provide a successful interpersonal relationship between the patient and the dentist and also, the dental problems can be cured effectively. Dental signs need to be devised and standardized through proper channels, which can be taught to the hearing-impaired students as well as the dental students to facilitate effective communication between operator and the hearing-impaired patient during treatment procedures. Health-care workers should know the basic communicating skills through Sign Language which would break the barrier of lack of conveying one’s complaints with respect to the patient, and also explaining the line of treatment with respect to the dentist himself, which will also support the idea of the comfort and confidence of such a patient in a dental clinic.

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