How to improve communication with deaf children in the dental clinic

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ABSTRACT

It may be difficult for hearing-impaired people to communicate with people who hear. In the health care area, there is often little awareness of the communication barriers faced by the deaf and, in dentistry, the attitude adopted towards the deaf is not always correct.

A review is given of the basic rules and advice given for communicating with the hearing-impaired. The latter are classified in three groups – lip-readers, sign language users and those with hearing aids. The advice given varies for the different groups although the different methods of communication are often combined (e.g. sign language plus lip-reading, hearing-aids plus lip-reading).

Treatment of hearing-impaired children in the dental clinic must be personalised. Each child is different, depending on the education received, the communication skills possessed, family factors (degree of parental protection, etc.), the existence of associated problems (learning difficulties), degree of loss of hearing, age, etc.

Key words: *Hearing impairment, communication barriers, education, hearing-impaired patient, dentistry.*

INTRODUCTION

In health care, the hearing-impaired may have special accessibility problems because the health system does not meet their special needs for communication (1). Health care staff are often not aware of the barriers faced by the hearing-impaired or of their communication skills (1-3)

Many hearing-impaired patients complain that they are not properly informed about their disease, treatment and prognosis. They have the same rights to full information as other patients. Inadequate communication might create problems for the professional if the patient does not follow treatment instructions properly or does not take sufficient care because of lack of motivation (3,4).

The main barrier to communication for the hearing-impaired is the attitude adopted by others (5,6), which may affect the relationship with the patient:

- The hearing impairment may be wrongly interpreted and associated with a learning difficulty.
- Health care staff may think that lip-reading and written notes are sufficient for effective communication. However, some hearing-impaired persons do not fully understand either spoken or written language and, even if they use sign language (SL), this is simplified, has a different structure and less vocabulary.
- Staff may pity the hearing-impaired.
- The hearing-impaired may be considered as pathological cases rather than as people who need treatment for a pathology that has nothing to do with their impairment. Deafness may be more of a social phenomenon than a pathology and it is important to eliminate barriers to communication to promote socialisation of the hearing-impaired (6).
- Time pressure may lead some professionals to not make sufficient effort in communicating with the patient.
- Some people may wrongly believe they are unable to communicate with these patients. An effort should always be made, using different strategies.

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- A frequent mistake is to shout. In public, this may embarrass the hearing-impaired person. It may also distort lip movements, making lip-reading more difficult.
- When a sign-language interpreter is used (a family member, friend, professional), two common mistakes are to look more at the interpreter than at the patient and to talk about the patient in the third person (3,4,6,7).

The way in which a professional should deal with the hearing-impaired patient in the dental clinic will depend on the patient's age, when the impairment was acquired, the severity of the impairment (slight, moderate, serious, profound), any associated problems (learning difficulties), communication skills and preferences, family factors (parental hearing impairments and attitude), education (oral, bilingual, integrated, special), etc. There is a wide range of factors affecting the hearing-impaired, making it necessary to treat them in a personalised way.

EDUCATION AND COMMUNICATION METHODS FOR HEARING-IMPAIRED CHILDREN IN SPAIN

Hearing is very important for children's linguistic, cognitive, social and emotional development. Isolation and lack of information caused by hearing deficiencies, especially if these are serious, may give rise to problems in all these areas. The first three years of life are critical for the development of perception and motor skills, intelligence and language. If the hearing deficiency is diagnosed and treated early, its effects will be mitigated as it will be possible to take full advantage of these formative years (8,9).

Different types of schooling are available for children with hearing impairments – special education centres especially for the hearing-impaired, schools for integration that focus on the hearing-impaired, offering a specific programme for them, and ordinary schools in which the hearing-impaired receive their education alongside hearing children.

The methodological approaches adopted by such schools will depend on the communication system used for teaching:

- Oral language, spoken and written
- Oral language, spoken and written, with the support of special communication systems

• Cued speech: this is a system comprising three positions of the hand in relation to the face and eight figures formed by the fingers. It is used simultaneously while speaking to reduce the ambiguity inherent in lip reading.

• Bimodal system: this uses speaking and signs together. The signs aim to visually represent the semantic and syntactic structure of the statements, providing children early on with a method of expression that is easy to learn and that forms the basis for subsequent oral speech.

- Sign language: This has a different structure to oral speech, and is simpler. For example, no distinction is made between the Spanish verbs ser and estar, and verbs are only used in the infinitive with the tenses being indicated by signs. There is no universal system. Every country has its own sign language and there are even differences amongst the different regional languages within Spain (10).
- Bilingual methodologies are used in some centres. Sign language is the preferred system for communication and is related to the values of the hearing-impaired community and its culture. Then the oral language of the hearing community is taught with a view to achieving social inclusion and access to the written language (11).

There are three trends in education and communication based on the different forms of communication:

Oralist: The supporters of the oral language aim to promote the integration of the hearing-impaired in society by using any auditory capacity they may have and offering training in auditory discrimination, lip-reading and spoken language because they believe that social communication and access to culture require mastery of the oral language and that any other system will impede learning.

Manualist or signist: These consider sign language to be the natural language of the hearing-impaired. They have their own language which follows the same evolutionary stages as oral language. They say that the linguistic, cognitive and social development of children who learn a sign system is better and more regular than that of oralists.

Bilingual: These advocate the use of two communication systems – oral and signs. They feel the hearing-impaired are entitled to their natural language, that of signs, and to early communication and social learning through communication systems that are adapted to their hearing impairment. They also state that this makes access to oral language easier (8).

The above reasons mean that each deaf child may receive different education and have different communication skills. Family collaboration is essential if the education of the deaf child is to be successful. However early the impairment is diagnosed, even if hearing aids are applied, even if the most sophisticated techniques and the best professionals are available, without the support of the family it will be difficult to achieve proper education and integration of deaf children (8,11-13).

BASIC RULES FOR IMPROVING COMMUNICATION WITH THE HEARING-IMPAIRED

The strategies described below are applicable in any area, not only in dental treatment, and at any age. Although we have already noted that the hearing-impaired community is very varied, there are certain basic rules that will assist in communicating with them.

Firstly, we should know how the hearing-impaired usually communicate. If the patient is a child, we can ask the parents or the carer (4,9,14). We can also note how the patient communicates with the parents or carers. In the case of adults, we can ask the question directly or the person might anticipate the question and explain how we should address him or her (15).

In order to apply the basic rules for improving communication with the hearing-impaired, we should consider the different methods they use for understanding, such as lip-reading, sign language and hearing-aids, either singly or in combination:

Lip-readers.

Lip-reading is practised by most hearing-impaired people (2). One of the most important requirements for proper communication with such people is good visibility. If we try lip-reading on the TV with the sound turned off, we will see that it is not at all easy because not only are we not used to it but there are many factors that may prevent understanding, with some sounds that cannot be seen, such as guttural sounds. Lip-reading is only fully efficient when the conditions are ideal. There are often obstacles such as moustaches, poor lighting, wrong location and position of the speaker, excessively fast speaking, foreign accents, homophones (mamá, papá, etc.), lack of knowledge of the recipient's usual vocabulary, etc. In the dental clinic, there may be other obstacles such as the dentist's face mask, the use of technical terms, the supine position of the patient in the dental chair, anxiety, etc. (2) The dentist should try to speak in the best possible conditions so that the hearing-impaired patient can understand.

There are some basic rules that should be taken into account before and during the conversation:

Before the conversation:

- Never begin to speak if the recipient is not looking (15-17)
- Call attention with a light touch or a discreet signal before beginning to speak (7,16-18)

Bear these in mind when calling the patient in from the waiting-room (14).

- Face the patient and preferably be at the same level (especially for children) (7,9,16-19). If you want to explain something, stop the procedure and face the patient (7). Try to keep the same position (opposite) during the conversation. Do not move your head to one side at the end of a sentence. Do not look down, etc. (5,19).
- Do not move too far from or too close to the patient (7,18). You should be in a position in which it is comfortable for the patient and you are fully visible. Avoid standing behind the headrest as this means the patient must adopt an uncomfortable position in order to see your lips (19).
- Ensure your face is in the light (3-6,14-18). Never stand in front of a window or light (as your face will be in darkness).
- Aim to speak calmly, slowly and pleasantly. If you are in a hurry, tired or irritable, this will affect your communication with the patient (3,5). Patience relaxes the patient and improves his or her concentration and trust (18).

During the conversation:

- Do not have anything between your lips (cigarette, pen) or in your mouth (chewing-gum, sweets) (15,16)
- Avoid placing your hand or an object in front of your mouth (15-17) The face mask is a barrier for lip-reading. Any dental procedures should be explained before the dentist applies the face mask (4,7,14). If something is to be explained in the middle of the procedure, the dentist should not forget to remove the mask (3,5).
- Pronounce clearly, without exaggerating or shouting. Lip movements must be clear but not exaggerated as this distorts the lips, making it difficult to understand. This also happens with shouting, which is unpleasant for the hearing-impaired person, especially if in public, affecting his dignity and privacy. Speaking clearly is much more effective than speaking loudly. However, it may be useful for some hearing-impaired patients to raise your voice slightly (3,4,7,16-18).
- Always speak using your voice (16).
- Speak naturally, neither very fast nor very slowly (3,15,16,18).
- Do not speak in an over-simplified way or in slang (16,17), as the patient might not understand, unlike hearers who are constantly receiving information and learning new words and slang. In order to facilitate the integration of the hearing impaired, it is important to explain what is going on and what is being said around him or her. The dentist should teach hearing-impaired children new words relating to dental health (caries, filling,etc.) Avoid technical terms or excessive chat because lip-reading is tiring (5,7,18) .
- Use simple language, with short, simple sentences, especially with small children, without treating them as if they had a learning difficulty (7).
- Do not communicate with single words (7,16,18). The context of the sentence is often important. There are certain homophonous words that are difficult to distinguish solely from lip-reading (2).
- Repeat your message if it has not been understood (about 3 times). If it is still not understood, reconstruct your sentence or use synonyms (7,9,15-18).
- If necessary, use natural gestures or some written words (2,5,7,9,16-18) It is possible to communicate in writing with hearing-impaired patients who find it difficult to understand (sometimes because we do not enunciate clearly) (15). Always have pencil and paper to hand. The drawbacks of writing is that some visually-impaired people may not be good readers and it takes time, especially if the information to be given is complex (as when describing a root canal treatment) (15). An alternative is to have some written sheets prepared in advance explaining the main dental procedures, instructions, etc. Simple drawings may also be useful. This saves time and allows the patient to take a copy home to look at it at ease (2,4) .

Body language (posture and movement) and facial expressions play a very important role in communicating with the hearing-impaired in the dental clinic (7,14,15,18,20) and may be especially important in teaching hearing-impaired children. It is recommended that the doctor should know how to use his or her face and body to express feelings of happiness, sadness, anger, fear, interest, etc. to facilitate understanding for the deaf child. If the child does not behave correctly and is reprimanded in an inexpressive way, he or she may not understand. Use pleasant facial expressions and a calm manner (7)

Other advice:

- Every now and then ask if communication is working or if it can be improved (4).
- Questions should be asked to ensure that everything has been understood. The hearing-impaired patient may nod

even if he or she has not understood fully. Do not be afraid of repeating comments when necessary (2,4,7,18).

Hearing-impaired patients who mostly use sign language.

Sign language is a form of communication that is based on signs that are recognised nationally and regionally (but not internationally), and it has its own structure (unlike that of oral and written language). In Spain, Spanish sign language (LSE) is used and, in Catalonia, Catalonian sign language (LSC). Words may be used that have to be spelt out by forming different shapes with the hand. Each shape represent a different letter of the alphabet. It requires lots of practice and skill (20) .

Adults who use sign language are often not very skilled in oral language (both written and oral) as it is not their natural language. Family members or friends who can use sign language may accompany the patient and help give explanations or ask questions (18). It may be necessary to use a professional interpreter but this has the drawback of invading the patient's privacy as well as its cost (2).

Advice to improve communication with hearing-impaired patients who use sign language):

- When using a sign interpreter (professional, family member or friend), it is important to look more at the patient than at the interpreter. You should talk directly to the patient using the second person and pay attention when the patient replies (4,7,18).
- The interpreter should be present at all appointments (4).
- Attend a sign language course so that you can at least use its basic structure and some simple gestures. It is useful to learn the sign language alphabet (7,14,21).
- Speak slowly and clearly. Use simple sentences because sign language has a simple structure that is different from those of oral and written language, e.g. I'm going out with my friends (oral language). I with my friends go out (sign language). However, the hearing-impaired person may be bilingual, that is, they may use both types of language.
- It is very important to use body language and facial expressions (18). Facial expressions form part of sign language. They can be used to express happiness, sadness, anger, doubt, ignorance, disappointment, etc.

Patients using hearing aids.

In spite of technological advances, a hearing-impaired person who uses a hearing aid is not the same as a hearer. The aid does not help them hear naturally. They have to undergo a long and difficult process of re-education. Although the aid may help a lot, for profoundly deaf people it may be necessary for them also to lip-read (7,17).

Recommendations for improving communication with users of hearing aids:

- Eliminate any background noise (music, traffic, etc.) during the conversation (3-5,7,14,18) The most modern digital hearing aids do this anyway.
- Avoid any sudden noises which may affect the hearing-impaired more than normal hearers (7). Hearing-impaired children may be alarmed by noises coming from behind them. Try not to make too much noise (22).
- If the hearing-impaired person prefers to turn off the hearing-aid while the dentist is using rotating instruments or the suction system, notify them before you start to use the equipment (7,19) You should remember that, if the hearing aids are turned off, the conversation should be very limited and, during treatment, the assistant should ensure that instructions and actions are clear (9).
- Avoid passing your hands close to the hearing-aids or leaning your arm or body against them during treatment as they may buzz (9).

HOW TO DEAL WITH A HEARING-IMPAIRED CHILD IN THE DENTAL CLINIC

There is a lot of information about how to deal with hearing-impaired adults in health care, but very little about children. The following are some recommendations that are especially appropriate for children

- A hearing-impaired child should be dealt with in the dental clinic as an individual. Individualised treatment should be facilitated by the clinical history giving information on the degree of impairment, when it was acquired, the type of rehabilitation treatment being received, type of education and communication, family treatment and any associated problems. What is most important is to know how the child communicates. This information should be obtained whenever possible prior to the first visit, preferably in a meeting with the parents to explain exactly what will happen in the clinic and how they can prepare their child for the visit. The parents can be taught positive methods for behavioural control for dealing with their child, and they can be given booklets or photos so that the child can get an idea of what the clinic is like and what will happen there (23).
- Visits should be carefully programmed so that the child does not have to wait too long in the waiting room (23), thus avoiding excessive anxiety and fear.
- Once the child is in the dental chair, the dentist, assistant and parent should remain within the child's field of vision. During the first visits, the parents may prefer to be present to help the child feel safe. From the very first visit, an attempt should be made to speak to the child in his or her form of communication (23). The child may understand quite well with a hearing-aid or by lip-reading, or may talk in sign language. Most hearing-impaired children are able to communicate orally (under ideal rehabilitation conditions) as from the age of 6 (14)
- The dental clinic team should be able to use non-verbal communication, with body language and facial expressions. It is important to give a pleasant impression in order to relax the child and promote trust (21,22).
- Since the parents are the child's first interpreters, they can determine the child's attitude towards new experiences. Family attitudes may be positive or negative (over-protection, non-acceptance of the impairment, excessive burden for one member of the family with the others opting out, demanding parents, etc.). If the parents are realistic and understand and accept the child's impairment and limitations, they will help the child to deal with the new situation

in an independent way. But if they are over-protective and consider the impairment to be an incapacitating disability, they will limit the child's participation in the new experience, making the child very dependent on them, in which case the child will pay little attention to the dentist, constantly seeking the parents' attention and preferring them to do the talking (23,24).

- It can be useful to note how the parents speak to their child, using language that is as similar as possible. When explaining things, use clear, short sentences. If the child does not understand fully, repeat the sentence and if it is still not understood, reconstruct the sentence with synonyms or using a simpler structure. Body language and facial expressions should be used to facilitate understanding. Like all children, the hearing-impaired child will feel more relaxed with a caress or a handshake. If there is something the patient does not understand well, a word or sentence can be written down, or it can be explained with a drawing.
- When there is trust on the part of the parents and the child, the child can gradually be separated from the parents as they will no longer be so necessary. This will help increase the child's independence (23).
- Remember that full visibility is essential for communication with the hearing-impaired child and so that the child can see what is going on around him or her. Remove the face mask when something has to be said and try not to do anything out of the child's field of vision as this might be a source of frustration (4,24).
- The hearing-impaired child is especially afraid of the unknown, so needs many explanations and demonstrations. The instruments and equipment should be shown and anything that vibrates should be explained so that the child will understand it is normal and can prepare him or herself (23).
- The say – show – do technique can be altered for these patients to show – do (19,22), but this must take into account the patient's age, degree of impairment, communication skills, etc.
- The modelling technique may be very useful, allowing the child's sibling or another child to be observed while in the dental chair or by watching videos. Another way of explaining dental procedures is to use posters, photographs and drawings (14). Visual stimuli should be used to promote learning and improve behaviour.
- If the child uses a hearing aid, follow the above instructions. For example, reduce background noise, turning off rotating devices if they disturb the child, etc.…
- Hearing-impaired children are not very tolerant of long dental procedures. Make them as short as possible (14, 23).
- If the child usually uses sign language, the parents may act as interpreters. If the dentist cannot use SL, they will have to be present at all times in the clinic. The dentist should look at the child more than at the parents when explaining things or answering questions. It is recommended that dentists should learn at least the basic structure of sign language and some simple signs as well as using facial and body expressions (7,14,21).
- The actual dental treatment for a hearing-impaired child is similar to that of normal hearers but it is important to carry out preventive treatment for such children as there might be a lack of hygiene because of poor education and motivation. This requires good communication between the dentist and the child, and the parents should be involved in dental health education.
- It is not easy to explain the concept of local anaesthesia to a hearing-impaired child but, with the parents' help, it may be useful to say that the teeth are "asleep". The word "pain" is important for such children so it is not advisable to use a different word. Once the injection has been given, it is important to test that it is working, otherwise it may lead to lack of trust in the dentist.
- The use of a rubber dam should be introduced slowly in order to avoid negative behaviour in the hearing-impaired child. Remember not to block the child's field of vision while fitting it, as this will affect communication between the child and the dentist. Once there is trust, any difficulty will be resolved.
- Advance medication may depress the remaining communication centres, creating confusion and preventing proper reasoning. It is best to use general anaesthesia when other methods of controlling behaviour have failed (23).

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