

Professional Training in Dentistry for the Management of Patients with Hearing Impairment

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Abstract

The main difficulty faced by health professionals with people who have hearing impairment, whether mild, moderate, or severe, is the ability to communicate and interact with deaf people. For that reason, this research work aims to design a Basic Dental Care Guide for Patients with Hearing Impairment and thus guarantee personalized and quality dental care at UNIANDES Dental Center. The study was based on a quantitative-qualitative approach, with a cross-sectional design and descriptive-explanatory scope, through the application of a survey of 122 future professionals, where it was verified that most of them do not know the correct dental management or the proper way to communicate with deaf patients. Therefore, due to these antecedents, a basic dental care guide was developed to be applied by the professionals and dentistry students to offer inclusive services with high quality

Keywords: Basic dental care guide, hearing impairment, deaf patient, sensorineural hearing loss, sign language, deaf community.

1. Introduction

According to PAHO (Pan American Health Organization), people with disabilities have a sensory, mental, intellectual or motor condition that may interfere with their proper development in society. It is essential to know the difference between deficiency and disability, since at first talking about hearing impairment implies that hearing impairment has increased and a disability has already been consolidated, with total hearing loss bringing with it difficulties to engage in a conversation with someone else. (1)

Providing dental care for patients with hearing impairments can be challenging, and it requires dentists to have specialized training to ensure effective communication and care. The importance of professional training in dentistry for managing patients with hearing impairments is highlighted in the article by Daniela Abigail Cobo Álvarez et al., "Neutrosophic Linguistic Scale for Self-Assessment of Knowledge about Non-Communicable Diseases in Medical Students." The study emphasizes the need for medical students to have a good understanding of non-communicable diseases, including hearing impairments, to provide effective care to patients. Similarly, the article by Walter Alberto Vayas Valdiviezo et al., "Neutrosophic Linguistic Scale in the Assessment of Knowledge of

Psychosomatic Medicine in University Students," highlights the importance of proper training and education in psychology for medical students. The study highlights the need for medical students to have adequate knowledge of psychosomatic medicine, which is critical in understanding and providing effective care to patients with various psychological and emotional issues, including hearing impairments(2,3,4).

In addition, the article by Elizabeth Cristina Mayorga Aldaz et al., "Neutrosophic Statistical Analysis of Self-Assessment of Rehabilitation Knowledge in University Students," emphasizes the importance of training and education in rehabilitation medicine for medical students. Rehabilitation is an essential aspect of dental care for patients with hearing impairments, and it requires specialized knowledge and skills to provide effective care. The articles emphasize the need for proper training and education in various medical fields to provide effective care to patients with hearing impairments. Dentists need to have a good understanding of the medical conditions that can cause hearing impairments and be equipped with the knowledge and skills necessary to communicate and provide effective care to patients with hearing impairments(5,6).

While it is true that at the time of birth each person experiences differently the sensation of hearing or

hearing for the first time, it is necessary to know that when for some reason this opportunity is lost, the human being does not acquire the essential skills for their communication and development in the environment, affecting their participation in the social field, cultural, economic, educational, political and even in access to health services as mentioned by Kuengburg et al (7).

González et al, in their case report on the "Integral, behavioral and clinical dental management of Salvadoran pediatric patients with bilateral sensorineural profound hearing loss", makes it clear that often their oral problem is not related to disability but to the lack of access to information, since many of the patients of childhood age present different pathologies with pain evidencing that if there is no assertive communication and education in language. From the beginning, behavior can vary by not understanding them and attending to them adequately (8).

Valderrama et al, in their article "Determining factors for clinical dental care of patients with disabilities", carried out in Colombia with the objective of identifying what conditions adequate care for these patients; They evidenced through surveys to 147 private practice professionals that not all received undergraduate training to attend adequately, nor do many know different methods of communication. Making it clear that most do not have the training to handle these types of patients. Also in their review it was found that patients show inadequate oral hygiene, periodontal disease, caries, edentulism because they do not receive health information because it is the same professional who is limited to attending us due to lack of knowledge and insufficient preparation. (9)

According to Martínez et al in their study to verify the impact of prevention strategies on the hearing impaired patient carried out at the Special School No. 9 Hellen Keller in Argentina, determined that of 60 students, 34 boys and 26 girls of 11 years of age, 94% of them had a high index of bacterial plaque concluding that when trying to communicate on their own, the patients failed to reduce their Plaque index, but those who received information in sign language showed improvement. They explained that communication assisted by interpreters initially is appropriate and that lip reading and writing on sheets of paper will be the last option. (10)

According to the analysis of Campos-Cartes Velásquez, on the existing state of health care for deaf people it is corroborated that patients with deficiency and total hearing loss have a low knowledge about the health area, being more likely to not have relevant information that can help them understand oral health issues because most do not have access to television, newspapers or posters on murals with their sign language causing frustration and distrust in patients to attend medical-dental consultations (11)

Zuluaga et al emphasize that patients with disabilities require meticulous and special care according to

their age and cooperation, since they can easily acquire oral diseases due to food retention in the mouth causing: halitosis, gingivitis, periodontitis, caries and discomfort when eating including discomfort and pain thus affecting their quality of life. (12)

It is believed then that when starting a consultation with a patient who presents a disability or hearing impairment it is ideal that the dentist is prepared to receive and attend to him avoiding denying the consultation or referring him to another professional. Thus, Bernardo et al, in their research, point out that it is necessary to understand that the limitation of communication is evident but concludes that it is ideal to reflect on the need to establish courses where sign language is practiced in order to include people with hearing disabilities within health services not only dental but also medical. (13)

While it is true that health is a right for all as mentioned by the Ecuadorian State in its Art 32 and the Organic Law of Disabilities of Ecuador Art 19 where they recognize that all people with disabilities must be integrated into the different health services, whether private or public, I manifest then that this proposal is of great importance within the educational, labor and social area since with a support guide with sign graphics will help the professional inside and outside the UAO "UNIANDES" to adequately transmit a certain message to his deaf patient. (14)

It should be noted that in public or private medical or dental services there are several professionals who are not trained in sign language and this means that patients with hearing disabilities do not receive timely and quality care. Therefore, it should be considered that in the UAO "UNIANDES" comprehensive care is provided to all types of patients with and without disabilities, however; The faculty does not have in its repository a Basic Guide to Dental Care for Patients with Hearing Impairment which has made it difficult for many of the students to provide timely care to this type of patients, because they do not know or have not been trained in sign language, in turn this has caused deaf patients to limit themselves to going to dental consultations due to the lack of understanding with the professional. As Vozza et al mentions, it is essential that in order to guarantee equal opportunities for access to different oral health treatments for patients with disabilities, it is very important that there is full cooperation between the family and health professionals to jointly provide quality services in dental health. (15)

2. Methodology

This study is based on the assessment of the degree of training of future professionals of the UAO "UNIANDES" to provide care to patients with hearing disabilities(16-17).

Sample

Random for convenience constituted by 122

students between women and men, future professionals of the Dentistry career of the Autonomous University of the Andes.

Research instruments

Questionnaire: Consisting of 10 questions related to topics on the difference between hearing impairment and disability, correct terms to refer to people with hearing disabilities, knowledge about the National Federation of Deaf People of Ecuador, previous attention to deaf people and their management, previous academic training on how to care for deaf people, knowledge of basic Ecuadorian Sign Language and LSEC virtual dictionary, willingness to learn basic sign language to provide dental care and criteria on the importance of the UAO UNIANDES having a Basic Guide to Dental Care for Patients with Hearing Impairment.

Google Forms: Due to the health emergency, this process was carried out online, obtaining the tabulation of the results in percentage form.

3. Results

When reviewing the data, some questions were unified about their degree of correlation

Do you know what the correct terms are to refer to a hearing impaired person?

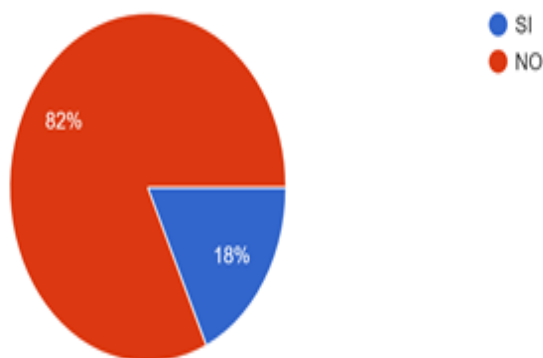


Figure 1. Correct terms to refer to a hearing impaired person.

Source: Tapia Jessenia, 2022

Analysis

According to the results obtained, 82% equivalent to 100 respondents do not know what are the correct terms to refer to a person with hearing impairment while 18% say they do know them. Therefore, it is necessary to share information through educational talks on the appropriate terminology to refer to people with disabilities in order to initiate adequate care with inclusive treatment. (Figure 1.)

Did you know that there is a National Federation of Deaf People of Ecuador?

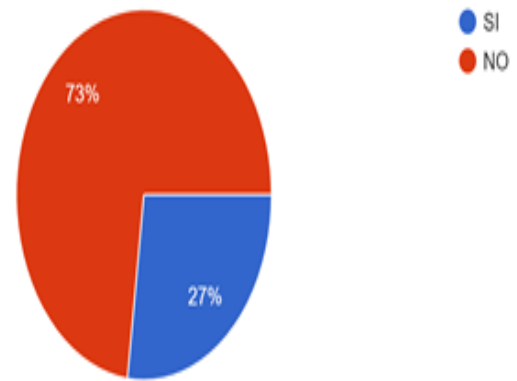


Figure 2. National Federation of Deaf People of Ecuador.

Source: Tapia Jessenia, 2022

Analysis

According to the results obtained, few students are aware of the existence of the representative body of deaf people in Ecuador, so it is important to provide information about "FENASEC", history, objectives, associations and continuous work such as the creation of Ecuadorian sign language; Well, in this way it will be achieved that the professional stays updated and shows interest in knowing about the deaf community of our country. (Figure 2.)

Did you receive information on how to care for people with hearing disabilities during your academic training?

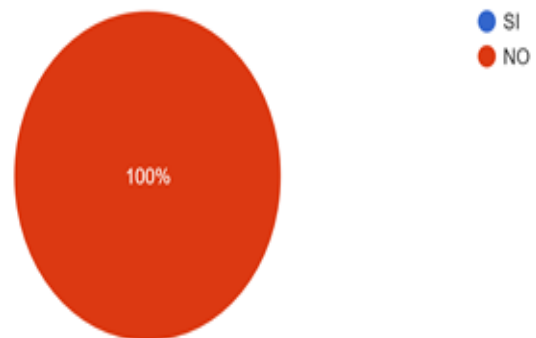


Figure 3. Academic training to care for people with hearing disabilities.

Source: Tapia Jessenia, 2022

analysis

Therespondents indicate that they have not received information on how to care for people with hearing disabilities within their academic training. What makes it clear that it is extremely important and necessary to implement conferences and workshops within the chairs of public health, epidemiology and community health in order to provide adequate care to these patients and at the same time that professionals manage to acquire at least a basic knowledge of how their attention and management needs within the consultation, in this way, the graduation profile of the professional in Dentistry would be fully fulfilled. (Figure 3.)

Do you know basic sign language?

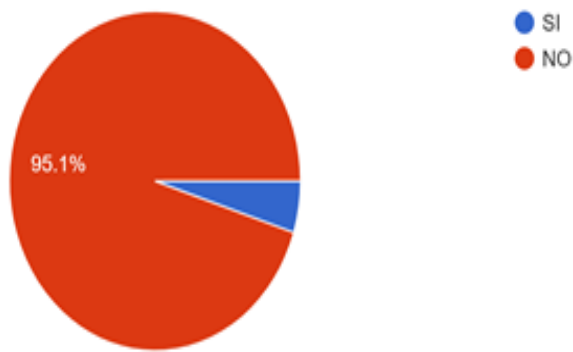


Figure 4. Knowledge of basic sign language. Source: Tapia Jessenia, 2022

Analysis

95.1% corresponding to 116 respondents indicate that they do not know basic sign language, which is why it is suggested that they should implement courses for the teaching of sign language within the curriculum, which should be taught by deaf people or certified interpreters. At the same time, it is proposed that the students themselves attend basic courses taught by "FENASEC" and complete their training to achieve adequate communication with deaf patients. (Figure 4.)

Would you learn basic sign language to provide dental care to patients with hearing impairments?

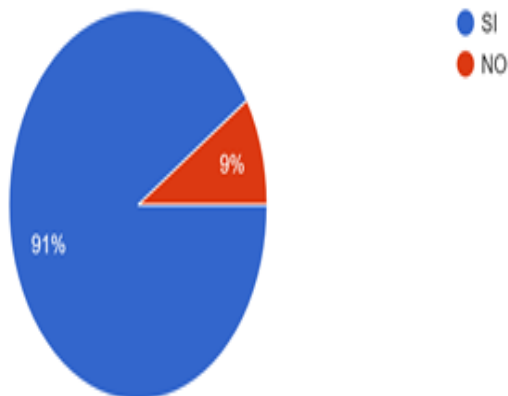


Figure 5. Learn sign language for patient care. Source: Tapia Jessenia, 2022

Analysis

According to 91%, 111 respondents say they would learn basic sign language to provide dental care to patients with hearing impairment. Therefore, it is suggested that the University implement teaching workshops in conjunction with "FENASEC" so that they are the ones who supervise that the basic signs are carried out properly and thus promote a correct attention to the deaf community. (Figure 5.)

Do you consider it important that the UAO Uniandes has a Basic Guide for Dental Care for Patients with Hearing Impairment?

Analysis

For most respondents it is important that the UAO "UNIANDES" has a Basic Guide to Dental Care for Patients with Hearing Impairment, for this reason it was decided to carry out this research work where a didactic material of signs will be developed

motivating professionals to become more empathetic to know and handle basic signs for the care of deaf patients and thus include people in their clinical care with this disability. (Figure 6.)

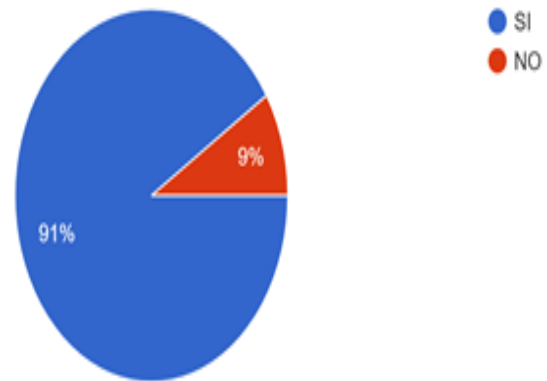


Figure 6. Importance of the Basic Guide to Dental Care for Patients with Hearing Impairment. Source: Tapia Jessenia, 2022

4. Discussion

Hearing is one of the five essential senses for the development of any living being, it is defined as the ability to hear. Lawalni, mentions that it would be a basic action but extremely important for the day to day of any person. The ear is composed of important parts anatomical structures and sound receptors that when altered can bring with them a deficiency in their functional system, thus producing a limitation and over time consolidating into a disability con restriction to perform an activity. (21-23)

In Ecuador there are about 471,205 people with different disabilities, whether mental, cognitive, intellectual, physical, visual and auditory, each of them needs timely and equal health care. According to the statistics of Registered Persons with Disabilities of Ecuador, 66,538 have a hearing disability, of which 1,881 are in Ambato-Tungurahua. (24-26)

In order to prevent patients with hearing disabilities from not being treated adequately and not using the appropriate terms to refer to them during the dental consultation or failing that, being referred to other places outside the UAO "UNIANDES", a basic guide to dental care for deaf patients helps dentists learn Basic signs to fill out corresponding data from the medical history, provide adequate information about their treatments and share suggestions to their families in case they cannot attend with their interpreter. (28-30)

Several investigations suggest different techniques for communication with deaf patients such as writing on sheets, use of pictograms and lip reading, however; many agree that knowledge of basic signs will help to properly manage patient behavior as well as make the dentist more aware of the need to learn them to ensure that these patients have access to information in your own language. (26-28)

Therefore, to improve the care of deaf patients and access to dental health services, a manual was created to serve as a guide and allow future

professionals and dentists to learn basic Ecuadorian sign language to handle basic communication, know the rules to maintain dialogue with the deaf patient, making it clear that what is sought is to guarantee accessibility to comprehensive care at UAO UNIANDES and never appropriate the cultural identity of the deaf community, much less supplant the interpreter who will really always be a means of communication between the world of hearing people and deaf people. (34-37)

5. Conclusions

Through the applied surveys it was found that the students of the dentistry career do not know accurate information about the management of patients with hearing disabilities or the rules of communication within the dental office, being necessary training with the help of the National Federation of Deaf People of Ecuador so dentists can learn about the deaf community and understand their communication through signs.

By developing this research, the necessary theoretical-scientific foundations were obtained to understand that the comprehensive dental management of patients with hearing impairment is reduced by the communicative gap that exists between professional and patient.

Finally, the Basic Guide to Dental Care for Patients with Hearing Impairment will be a fundamental instrument of support for the professional because it will allow to maintain a basic and integral communication with the people of the deaf community of the country, such guide is available in the virtual repository of the Autonomous University of the Andes.

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