ETHICAL DILEMMAS CONCERNING THE DENTAL TREATMENT OF PATIENTS WITH HEARING IMPAIRMENT

Raluka Diana Şuhani*, Mihai Flaviu Şuhani*, Alexandrina Muntean*, Michaela Mesaroș*, Mîndra Eugenia Badea*

Abstract

Background
Research is increasing in dentistry but there is still scarce data regarding knowledge, attitude, behavior and ethics of dental professionals treating people with special needs. Ethical dental care for hearing impaired patients represents a thorny topic because obtaining optimal results is an ongoing challenge for dental care providers and also because of the widespread belief in some cultures that impaired persons are considered less of a priority. This study evaluated ethical dilemmas of dental practitioners who offer medical services for persons with special needs.

Methods
We conducted a cross-sectional quantitative study using questionnaires sent to 150 dental practitioners involved in providing dental care for hearing impaired patients. It contained 30 multiple choice questions regarding respect for the principles of ethics, emotional and communication issues, informed consent usage and its level of comprehension, the quality of treatment provided.

Results
Results showed that dentists are often confronted with an emotional dilemma when treating deaf people. Almost all dentists reported difficulties in communicating with hearing impaired patients. Most dentists questioned in our study hand out an informed consent, but this type of document is difficult for deaf patients to understand.

26.05% of the dentists in this study admitted not always respecting doctor-patient confidentiality while 16.80% refused treating deaf patients at least once in their professional careers.

86.55% of dental practitioners reported that the oral health status of the deaf is poorer than that of the general population.

Conclusions
While access to dental services has improved over the last decade for impaired patients, promoting good oral hygiene for high risk patient groups is subpar. Worldwide different treatment strategies are used in the dental treatment of this patient group.

Keywords: informed consent, dental care, deaf patients, ethics

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I. Introduction

Impaired hearing is one of the most common sensory failures affecting 250 million individuals, out of whom 30 million are deaf [1].

Deaf patients have a higher risk to suffer from marginalization as a result of communication, cultural, social and language barriers. Deaf communities have limited health care access and altered health care utilization patterns. Also, they are isolated from a variety of beneficial health care education and disease surveillance [2].

Although health professionals are introduced to the code of ethics early in their training [3], some ethical problems encountered when working with deaf patients are often complex and involve issues incompletely addressed in the code [4, 5]. Even clinicians specialized in working with deaf patients and dealing with this specific group on a daily basis, face ethical challenges [6]. The codes are vague about working with interpreters, language and communication issues and do not cover all the situations involved by access to medical services or other problems such as discrimination.

Beauchamp and Childress [6] refer to beneficence, nonmaleficence, justice, autonomy and maintaining a professional relationship (integrity, confidentiality and fidelity) as being the four principles of biomedical ethics [6].

Beneficence implies the obligation to provide helpful dental services for the patient’s best interest. Nonmaleficence refers to things a dentist must avoid: injuring, harming, hurting, or causing a negative outcome. Justice means treating patients fairly and not engaging in discriminatory practices. Hearing impaired patients should get health care of equal quality to that of hearing ones [3]. Autonomy refers to the patient’s right to make independent choices [6].

The major issue for all deaf patients is communication with the hearing world. Significant communication difficulties with physicians as well as misunderstanding about the disease or treatment often occur [3]. Many hearing impaired patients complain they are not properly informed about their disease, treatment or prognosis. According to the International Code of Medical Ethics [5], they have the same right to information as hearing patients, but inadequate communication brings about misconceptions [5]. The deaf are patients at a high risk for miscommunication and an inaccessible informed consent (IC) can often be the cause [3].

From an ethical point of view, the informed consent (IC) has its roots in the ethical principle of autonomy and respect for human beings [7] but respecting a patient’s autonomy can be complicated for reasons of impaired communication. Experts in the field of bioethics include in a standard IC relevant information (explanations in an easy language, regarding treatment procedures, risks, treatment alternatives and prognosis), the evaluation of patient’s comprehension, the tacit evaluation of his capacity to make a decision and the assurance that the patient is at liberty to choose without manipulation or coercion [5, 8, 9].

The IC gives the patient the freedom to actively participate to decisions regarding his/her treatment and decide in full awareness instead of completely relying upon the decision
of the clinician, which has been the norm in the field of dentistry for the past several decades [8]. IC with the deaf need to be visualized in a much broader format than the common IC forms. Using pictures and short videos, a well conceived IC could help participants to fully understand the information [2].

Dentistry for deaf persons is difficult although different information and treatment strategies are used worldwide [4]. Collaborating with deaf people also requires a careful psychological approach, creativity, flexibility, compassion, patience and mutual respect [2].

Sometimes doctors find it difficult to clearly explain the medical issues because some patients have limited language skills and proficiency or lack background knowledge. Language sophistication must be avoided and information should be kept accessible and comprehensive [2].

Not only ethical dental care for the deaf is a delicate and somewhat volatile topic but deaf communities are largely understudied and underserved. Some of the reasons are the exclusion criteria, inadequate recruitment, engagement strategies and inaccessible informed consent [2].

Only a limited number of studies evaluate IC processes and comprehension among those with limited language proficiency with none being available for deaf [2]. Few literature reports have discussed the ethical dilemmas of dental professionals treating deaf persons, underlining the communication barriers and behavior patterns.

Due to the facts above, we developed a questionnaire, concise and time efficiently. It gathers relevant information from the doctor’s point of view regarding the communication and treatment difficulties met when dealing with deaf patients.

The objectives of our study were:
- to assess how the ethical principles are applied in the dental practice when treating hearing impaired patients;
- to identify the communication issues arising in treating hearing impaired patients;
- to identify the self-perception of the dental practitioners regarding their competence to treat hearing impaired patients.

II. Material and method

Study design

The study was approved by the Ethics Committee of the University of Medicine and Pharmacy Iuliu Hațieganu Cluj-Napoca. After obtaining approval from the institutional ethics committee, we started recruiting the subjects.

This cross-sectional quantitative study was conducted among recruited dentists in Cluj County, between January and March 2015.

In order to recruit the participants, a letter was sent to author’s colleagues, asking for referrals of eligible clinicians, who may be interested in taking part in the study. Afterwards emails were sent to every referred dentist, inviting them to participate along with a brief description of the study and the contact information of the investigators.
Study subjects

150 dental practitioners were selected in order to participate in the survey, but 31 were excluded as they did not fulfill all the inclusion criteria: dental practitioners, aged between 26 – 65 years old, treating patients with hearing impairment and expressed willingness to participate in the study. The exclusion criteria included: doctors with existing psychopathology (chronic nervous or emotional problems) or any associated pre-existing medical illness. 119 dental professionals were included after they provided their agreement to participate in the study, in a written informed consent. They received the questionnaire containing 30 items grouped into 7 sections as shown in Table 1 with the request to complete it in a correct manner.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of questions regarding the topic</th>
<th>Items regarding the topic</th>
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<tr>
<td>Demographic data</td>
<td>5</td>
<td>1, 2, 3, 4, 5</td>
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<td>Informed consent completion</td>
<td>3</td>
<td>6, 7, 8</td>
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<td>Communication with the patient in verbal and written form</td>
<td>9</td>
<td>11, 12, 13, 14, 15, 16, 17, 20, 21</td>
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<td>Emotional involvement of the doctor</td>
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<td>Dealing with and treating impaired patients</td>
<td>10</td>
<td>9, 10, 18, 19, 23, 24, 25, 26, 28</td>
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<td>Confidentiality aspects</td>
<td>1</td>
<td>27</td>
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<td>Scientific research and practice improvement</td>
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<td>29, 30</td>
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Table 1. Information about the questionnaire

Data was collected using this structured closed-ended questionnaire, with 30 items. It consisted of the following sections: working environment (city/rural), working situation (private/institution), year of graduation, gender, frequency of using informed consent, level of understanding by hearing/deaf patients, frequency of treating deaf patients, the quality of dental services provided to deaf patients, communication means used when dealing with them and their oral status compared to that of the hearing people. Emotional issues, that a dentist treating deaf patients faces, were also looked at. Doctor-patient confidentiality was one of the topics we introduced in the questionnaires, as well as the refusal to treat deaf patients. Other aspects evaluated were factors influencing the use of dental services by the people with hearing impairments and respect for the ethics principles.

Statistical data analysis

The collected data were
electronically introduced in a Microsoft Excel 2012 spreadsheet and then transferred and analyzed with Statistical Package for Social Sciences (SPSS) program, version 20.0 (SPSS Inc., Chicago, Illinois, USA).

Chi-square test analysis and student t-test were used in order to measure the strength of associations between different binary variables at a level of significance of 5% (p<0.05).

III. Results

a) Demographic data

The age of the responders (dentists) varied between 26 to 41 years old, with a mean age of 33±7.9.

For the used questionnaires a 79.33% response rate was achieved. Demographic data showed that 63.02% of respondents graduated university more than 5 years ago. 78.15% of dentists worked in an urban environment, 15.12% in rural conditions while only 6.72% combined both work environments. 80.67% of dentists worked exclusively in private offices with 6.72% also working in an institution or university. 14.28 % of them completed a specialization program.

b) Informed consent completion

Results showed that 30.25% of practitioners don’t hand out informed consents to patients.74.78% of the dentists reported that non-hearing impaired Romanian people have problems in fully understanding a standard IC, while 97.47% of dentists admitted that deaf patients have difficulties in grasping the medical language which most often appears in these consents, as shown in Figure 1. Informed consents were more frequently used by dental practitioners working in private offices and in urban areas than in universities/governmental institutions or rural areas (p=0.03, p=0.02).

![Figure 1: Informed consent miscomprehension from dentist’s perspective](image)

Figure 1. Informed consent miscomprehension from dentist’s perspective

c) Communication with the patient in verbal and written form

68.06% of the dentists reported not feeling qualified to work with impaired people mainly because of communication issues and also difficulty of clinical management. 97.47% of dentists reported difficulties in communication with deaf patients. 90.75% of them reported that they

<table>
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<th>hearing patients (74.78%)</th>
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combined different communicative strategies: lip reading, writing and a sign language interpreter. 63.02% appreciated being helped by a family interpreter, and 60.02% of dentists reported they did not benefit of the services of a professional interpreter (cost being the main reason), as shown in Figure 2.

![Figure 2. Type of interpreter preferred by dentists in communication with deaf patients](image)

Written take home instructions were actively used by 31.93% of the dental practitioners.

d) Emotional involvement of the doctor

86.55% of dentists admitted that they dealt with emotional problems when treating deaf patients.

e) Dealing with and treating impaired patients

69.74% of clinicians mentioned that consultations and dental treatments for hearing impaired patients required more office time than for non-hearing impaired. 34.45% think that the treatment done on deaf people was not always optimal.

f) Confidentiality aspects

26.05% of the dentists confessed not always respecting doctor-patient confidentiality while 16.80% admitted refusing to treat deaf patients at least once as illustrated in Figure 3. No statistically significant differences were found regarding doctor-patient confidentiality or treatment refusal of deaf patients in urban or rural areas (p=0.06; p=0.08).
g) Scientific research and practice improvement

83.19% of the dentists considered that research on the matter of treating deaf patients is useful.

86.55% reported that the oral health of deaf patients is poorer than that of the general population.

IV. Discussions

It is in the best interest of the hearing impaired patients that the majority of dentists treating them are experienced clinicians with over 5 years of practice.

As our study revealed, only 30.25% of the participants did not hand out informed consents. This value is in accordance with the study conducted by Farhat et al [8], which concluded that 43.2% of doctors did not hand out informed consents. This may be probably due to lack of time or negligence [8, 9]. Even if most dentists actually used informed consents (69.74%), most of the hearing Romanian people and almost all the deaf patients have problems in fully understanding an IC, this being a matter requiring further insight. Similarly, in the study conducted by McKee et al [2] it was found that 40-80% of hearing English speakers did not understand one or more aspects of the IC content [2]. The essential requirement of an IC is to give patients precise and pertinent information, helping them to make a voluntary informed decision [8, 10]. Standard IC is mostly ineffective for the deaf because many of them often fail to accumulate factual knowledge, resulting in significant gaps in basic information. The majority of ICs are written at a level that requires a high school or higher education, which is a problem knowing that only 20% of the deaf subjects have demonstrated fluency in written language, with the average reading level of a deaf high school senior being a 4th grade one. Language communication barriers and lack of comprehension create difficulties in obtaining a true consent [2]. Informed consent forms must be configured to be intelligible for the deaf and give them the opportunity to ask questions before they provide their signature. If they don't understand, they will fail to communicate important information [3]. The patient should be informed about all treatment possibilities and should be involved in all the treatment decisions [11]. Obtaining an informed consent from
each patient is mandatory before beginning any procedure. Patients should be aware of their health status, intention of each treatment, alternative plans (including no treatment), prognostics, risks, consequences, limitations. The IC aims to clarify the position of the patient, establishing the rights and duties of both patient and dental professional. Integral knowledge of the treatment will minimize anxiety for patients and will promote a greater standard of dental services, improving satisfaction for both dentist and patient [5, 12, 13]. Patients should be informed about the procedures to be performed, treatment time, risks and benefits involved by the treatment, as well as possible costs. The patient has the right to refuse certain procedures without consequences for the continuity of the treatment and should be aware of all treatment options. Disrespecting this right results in a clear violation of the principle of autonomy [5, 14].

97.47% of dental practitioners reported facing communication difficulties and 90.75% reported combining different communicative strategies: a sign language interpreter, lip reading and writing.

The sign language interpreter most commonly used by 63.02% of dentists was a family member or a friend who accompanied the patient. 60.50% of respondents reported they wouldn’t use a professional interpreter because of the costs involved. Even if an interpreter is present in the office, the clinician should face and address the deaf patient, not the interpreter [3, 5].

Lip reading is easily practiced by most hearing impaired patients, but for proper communication full visibility is essential. There can be some obstacles like moustaches, poor lighting or fast speaking which can create difficulties. In the dental care practice there may also be obstacles like the face mask, the use of medical technical terms or anxiety. The dentist should not have anything between the lips (pen/cigarette) or in the mouth (chewing-gum), also he/she must not place hands or face masks on the mouth. The dentist and staff should speak calmly, slowly, pronounce words clearly and use simple language with short and simple sentences. Repeating sentences is often required, if the message is still not understood, the doctor should reconstruct a simple structure or use synonyms [5, 15].

Writing is very useful in communicating with deaf patients, so dentists should always have a pencil and paper at hand. About 31.93% of the dentists reported they used written instructions for patients, especially after surgical procedures. It is also recommend drawings or written sheets prepared in advance, explaining the dental procedures [5]. As communication is an important aspect of competence in treating deaf patients, health practitioners should also be able to evaluate, select and adapt themselves to the patient’s communication needs [6]. Communication competence requires investment of time and money (interpreter) [12, 16, 17]. Not all deaf people present the same communication needs and skills, some of them require a sign language interpreter for adequate communication [6].

Awareness can facilitate better health care provision and successful interaction with these persons [3, 18, 19]. Obviously, deaf are not able to communicate with
clinicians due to hearing impairment. Although the informed consent process takes a certain time, it provides an opportunity for the dentist to create a good relationship [20, 21] with the patient and to offer the information needed for proper understanding. This also allows the patient to agree with the suggested treatment. Thus patient confidence increases, he/she will be fully informed and will have control over the decisions being made [5, 22-25]. It is mandatory especially in these cases to verify if the patient understands all the recommendations.

69.74% of dentists reported that they need more office time to deal with a deaf patient. This is related to time pressure, which may lead them to insufficient efforts made in communicating with deaf patients [5]. In our study, not one participant considered that it was impossible to communicate with deaf patients, in contrast to the study performed by Sales-Peres et al in Spain, where health practitioners believed that they were unable to communicate with deaf persons [5].

86.55% of clinicians reported that deaf patients have poorer oral health compared with hearing patients. This is in agreement with the study performed by Meador et al [3], who considers that the deaf have poorer knowledge, health care and inferior understanding about current preventive medicine compared to hearing individuals [3]. Deaf people have problems in learning health recommendations [1] and may feel their treatment is inferior to that of hearing persons [3]. Perhaps that’s one reason why deaf persons visit physicians less frequently even if they are aware that a visit is necessary [3].

86.55% of respondents admitted that they have dealt with emotional problems when treating deaf patients. Marks et al [4] also concluded that dentists are sometimes confronted with emotional dilemmas when treating these cases [4].

34.45% of the dentists felt that the treatment done on deaf patients was not always optimal. This is in agreement with Marks et al [4], who reported that it is a continuous challenge to obtain optimal results on deaf patients [4].

16.80% of the dentists admitted refusing to treat deaf patients at least once. There are other studies that reported health practitioners refusing to treat deaf patients because of the communication barrier [6, 16-18]. This fact is unjust especially when by refusing to treat a patient, it has the potential of harming them. According to the ethical principle of justice, services offered to the general population must also be accessible to deaf populations [6]. Health practitioners should not take clinical decisions in a discriminatory way. When deaf patients are inappropriately diagnosed, improperly treated or are refused by dentists, the basic principles of ethics and medical deontology are violated [15]. If a deaf individual is refused treatment without providing a better option, he/she could be demoralized and discouraged by the refusal. Clinicians must decide whether to accept a deaf individual as a patient or whom to refer such cases. It is recommended to refer such cases to a better qualified peer to provide appropriate treatment. Collaborating with other dentists, interpreters or medical assistants provides service as a team, maximizes benefits and reduces the chance of harm [6, 26].

Our study shows that 26.05%
of dentists reported that they didn’t always respect doctor-patient confidentiality. While in the study performed by Garbin et al. [21], was found a similar value, 44.29% [21]. Respect for a patient’s confidentiality and privacy are listed in the principles of ethics. A dentist should also manifest respect for people’s rights, dignity, honesty, professionalism, compassion and ethical thinking [6, 19-21].

83.19% of participants had a favorable attitude towards research in dental care ethics, also being aware that their knowledge and behavior patterns needed improvement. The present pilot study highlighted the need for further nationwide studies, development of research ethics and dental education for deaf communities. Benefiting from modern technology, electronically learning can be a useful method. Mobile devices, tablets or smart phones represent an easy way for closing the communication gap especially with young deaf patients. Educational videos enriched with sign language, images, subtitles with short and simple sentences are suitable tools in deaf oral health education [1]. Today, patients around the world are more informed about health issues and have greater knowledge of up-to-date dentistry services [5].

V. Conclusions
Our results show that most dentists who are active in treating deaf patients seem to be aware of the ethical dilemmas involved by this situation. Hearing impairment has a negative impact on the quality of medical care in dentistry. Doctors should ensure that the deaf patients fully understand the content of an IC and use different strategies to improve the IC process. From an ethical point of view, obtaining a patient’s IC is fundamental in respecting the principle of autonomy.

Communication barriers must be overcome in order to promote easier access to dental care for the deaf. This goal can be achieved by developing better communication skills and promoting cooperation with the deaf communities. According to this survey it becomes clear that the majority of dentists accept the importance of collaborating with an interpreter.

As more than 85% of the dentists deal with emotional dilemmas while treating patients with hearing problems, we consider it beneficial to create guidelines for these particular situations. Looking towards the future, the values and principles of ethics should be better implemented so that the new generations of dental graduates and clinicians will take them as a responsibility in rendering a good standard of dental care.

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References


