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# Insight on Improving Professional Performance in Dental Practice: Essentials of Verbal and Nonverbal Communication in Dentist-Patient Relationship (A Critical Review)

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## **Author's contribution**

*The sole author designed, analysed, interpreted and prepared the manuscript.*

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## **ABSTRACT**

**Background and Aim:** In contemporary world, patient's expectations of his dentist include not only professional performance of treatment procedures, but also a high standard of communication skills and individual approach. The current paper aimed to outline some essential elements in dentist-patient relationship regarding verbal and nonverbal communication techniques.

**Methods:** Based on available literature on the issue as well as some assumptions that arose from the author's personal experience and observations, the article underlined the importance of acquiring effective communication skills by the dentists, thus providing quality dental assistance, and ensuring patient's satisfaction.

**Results:** Literature review summarized basic theoretical aspects regarding communication media, verbal and nonverbal communication techniques and their relevant application in dental practice. The results indicated that developing communication skills can help dentists to build trust, security, and respect in the patient during the therapeutic process. As a result of effective communication, it can be expected that the patient will be more motivated to follow the prescriptions and thus he will have a better chance of successful treatment.

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**Conclusion:** To achieve high standards in practice, dentists need to be not only good specialists, but also excellent psychologists. Mastering a high level of verbal and nonverbal communication skills is a good solution towards their better professional performance and fulfillment.

*Keywords: Communication; dental practice; verbal behavior; non-verbal behavior; dentist-patient relationship; MeSH terms; communication\*; dentist-patient relations\*; humans; oral health\*; dentistry.*

## 1. INTRODUCTION

In contemporary world, patient's expectations of his dentist include not only professional performance of treatment procedures, but also a high standard of communication skills and individual approach. On the other hand, the nature of the activities in the dental practice for years has accumulated in patients a fear of pain and attitudes to delay treatment. Technologically in dentistry, the problems of pain and discomfort during treatment and during the healing period have received satisfactory solutions, but still the associations with the "drill" continue to burden dental patient's behavior. In addition, the patient/dentist relationship has been the cause of many patients having poor experiences. With the proper attitude, understanding of one's self (the dentist), and the use of good communication skills, a dentist can help a patient overcome his or her limiting feelings as they relate to having dental care [1].

On the other hand, holistic approach (biopsyo-social model) to the patient should be an integral part of the modern professional attitude of the therapist. The professional must be ready to accept in his office not just a sick person, but a social person who brings his positive and negative experiences, ideas, expectations and hopes, expressed in worries, fears, and potential for active participation in the treatment process. The modern behavioral framework of the dentist integrates the construction of a comprehensive individual approach, high quality, and efficiency in providing dental care to each individual patient [2].

It has been proven that the results of the treatment are a function of the effective interaction between the therapist and his team, on the one hand, and the patient - on the other [2]. Developing communication skills can help dentists to build trust, security, and respect in the patient during the therapeutic process [1]. As a result of effective communication, it can be expected that the patient will be more motivated to follow the prescriptions and thus he will have a

better chance of successful treatment. On the contrary, failure to achieve good patient management will result in poor patient cooperation and potential failure of treatment [3]. It was proven that dentists' communication styles were associated with patient satisfaction. Dentists should not only give information to patients adequately but should also pay attention to their personal communication style [4]. Therefore, it remains important to train dentists in communicative skills as patients' satisfaction is mainly influenced by the communicative behavior of the dentist [5].

Communication is sending a message from one person and receiving it from another. The main purpose of communication is the reaction that is received by the recipient [6].

Mastering communication skills requires psychological training, which should include:

1. Getting acquainted with different types of personalities with their characteristic behaviors.
2. Using the most effective approaches to dentist-patient communication by mastering verbal and nonverbal communication techniques as well as psychological and cognitive-behavioral strategies in the control of stress, conflicts, and professional "burnout" [7].

Practice shows that dentists' ability to persuade, explain, tell, motivate, and influence patient's psyche, to regulate their own emotional state and to cope with stressful situations contributes significantly to their successful development in the professional activity. Good communication between dentists and their patients benefits the patient, the dentist, and the dental team [8]. Effective communication with the patient and the team, the use of verbal and nonverbal techniques to improve clinical communication, as well as the acquisition of skills for coping in conflict situations would provide a relaxing work environment and a positive psycho-emotional climate in every dental practice.

## 2. MATERIALS AND METHODS

The current review aimed to indicate the most important items regarding dentists' verbal and non-verbal behavior in daily dentist-patient relationship thus providing opportunities to increase patient's satisfaction and quality of treatment received. The protocol was based on methodology including the eligibility criteria and search strategy to map the available literature sources related to the topic.

### 2.1 Eligibility Criteria

Inclusion and exclusion criteria were developed to aid the selection of evidence-based sources supporting the purpose of the review. The inclusion criteria were that the studies had to:

- be written in English
- be research or review papers or appropriate books
- present contemporary data on the questions of interest
- be related to verbal and non-verbal communication skills in dental practice
- outline patterns in dentist-patient relationship
- be concerned with improving patient's satisfaction and quality of dental treatment.

Sources would be excluded for full-text evaluation if they were with title only (no abstract available) and without an adequate description. Structural-semantic method and interaction analysis were used to present basic theoretical aspects of discussed issues and to identify potential patterns in dental practice. In-depth reading and author's experience and observations as a practicing dentist allowed more fully to reveal essential regularities concerning mentioned problems above.

### 2.2 Search Strategy

The following electronic databases were searched to identify potentially relevant sources:

Medline/Pubmed and Google Scholar. Search strategy was based on specific MeSH terms.

## 3. RESULTS AND DISCUSSION

Literature review summarized the most important theoretical aspects regarding communication media, verbal and nonverbal communication

techniques and their relevant application in dental practice. They are presented in a logical sequence in the body of the paper.

### 3.1 Communication Media

Means of communication are verbal and nonverbal (body language, facial expressions, gestures, etc.). Usually, these two channels are parallel and exchange information at the same time. The verbal channel of communication takes place on a conscious level, while the non-verbal one - mostly on an unconscious level and is therefore much more authentic [9].

Research in behavioral sciences shows that the impact of sent message is distributed as follows: words - from 7% to 10% of the total impact; sounds, intonation, voice modulation - up to 38% of the total impact; body language (facial expression, postures, gestures) - up to 55% of the total impact.

Patients seeking dental care need information and understanding of their emotional state. The level of doctors' explanations provides a better measure for evaluating the quality of patient-doctor communication [10]. The ability of the dentist to understand concerns and problems of the patient, as well as to explain the procedures and treatment, contribute to the most effective communication in dental practice. Humphris & Ling (2003) propose a model of psychological care in which the tasks of communication are divided into two categories - to meet informational and emotional needs [11].

Information needs. This need concerns both the patient and the therapist. The dentist should receive information about patient's clinical and mental condition. First of all, he should start with general questions to prepare the patient. The patient is encouraged to share how he or she feels, what issues concern him or her, and what he or she wants to know about treatment and procedures. It is checked whether the patient had problems after the last visit, whether he understood the instructions of the dentist. The alternatives in the choice of treatment approach and treatment plan are commented on and the patient is asked if there are other problems that require explanations or additional information. The patient is invited to repeat in his own words what has been discussed.

Emotional needs. The patient is asked if there are any concerns about the examination or treatment. The answers are listened to carefully.

Questions are asked about the patient's feelings that the specific procedures evoke. The doctor makes suggestions to help the patient manage his emotional reactions. Certain non-verbal signs are perceived with which to communicate during the manipulations. Before the patient leaves the office, his feelings about the visit are also checked. Questions are asked about the attitudes for the next visit. The dentist thanks the patient for the trust and cooperation during the work.

Doctors still underestimate the need to listen carefully to the patient and show empathy and understanding. Their behavior often presents them as people who do not have enough time to build full communication. On the contrary, practical experience shows that the time spent to achieve peace of mind and trust in the patient is compensated many times over and leads to improved psychological comfort for the doctor [12,13].

### 3.2 Approaches to Communicating with the Patient

Corah et al. (1988) identify several ways that can reduce patient anxiety when visiting an office:

- not causing pain.
- showing friendliness.
- fast execution of the procedure.
- calm manners.
- providing moral support.
- prior reassurance about possible pain [14]

To be able to implement these approaches in communication, the dentist should have a set of personal qualities and develop skills such as:

Advantages of dentists who have communication skills are significant. They are able to prepare the patient and motivate him to cooperate [15].

### 3.3 Verbal Skills and Techniques

Verbal communication takes place through words (written or spoken). It is the most universal means of communication. It conveys the meaning of the message. In addition, verbal communication is very fast and allows adjustments to be made during the conversation. In verbal interaction feedback is immediate. The most important requirement for verbal communication is clarity of pronunciation and clarity of content. The effectiveness and efficiency of verbal interaction is largely due to the level of mastery of the communicator's

oratory and his personal qualitative characteristics. Speech mastery is considered to be the most important component of a person's professional realization [9].

In dental practice, verbal interaction between the doctor and the patient has its own specifics. It is very important in what voice the doctor speaks and what is his ability to express himself correctly. The style of speaking, the sonority and tempo, the expressiveness and the intonation, the pauses are important. The impact of communication begins from the first seconds of the meeting. That is why it is important:

- the patient should be greeted cheerfully with a smile.
- after addressing the patient with his name, to choose words that are understandable to him (without complicated medical terms that can provoke anxiety or remain misunderstood).
- to use words that do not scare – instead of pain to say discomfort; to avoid words such as cutting, bleeding, aspiration of blood, etc.
- to speak calmly, without panic.
- the intonation of the voice is very important, it can change the message.

The dentist should consider the fact that the memory of information in a state of great anxiety is poor. It is recommended to say the important things at the beginning and at the end of the meeting, after directing the attention. Repetition of information by the patient will improve the memory mechanism. It is also important to check that the patient has understood the instructions correctly, as well as that the doctor himself has understood the patient correctly. This avoids possible inaccuracies in the information.

### 3.4 Nonverbal Communication Techniques

In recent decades, scientific interest has focused on a specific type of communication other than verbal or linguistic communication, namely nonverbal communication (nonverbal behavior, body language).

Knowledge of the processes of non-verbal communication allows them to be controlled, to be adequately applied in everyday life, as well as to study the process of communication and facilitate the interactions and relationships between people.

**Table 1. Personal qualities and required communication skills in dental encounter**

<b>Personal qualities</b>	<b>Skills</b>
Warmth and friendliness	Empathic behavior
Energetic, enthusiastic	To interpret and evaluate
Neat, clean appearance	Behavior and messages
Tolerant of loved ones	To motivate
Not tired, bored or angry, patient	To listen
Correctness, confidentiality	To educate
Sense of humor	To monitor patient's condition

Aiming to clarify nonverbal communication, Buck and VanLear (2002) state that communication has two interacting streams:

- Symbolic communication, which is the intentional communication, using learned, socially shared signal systems, of propositional information transmitted via symbols and based on the neocortex, and
- Spontaneous communication, which is nonintentional communication of motivational-emotional states based upon biologically shared nonpropositional signal systems, with information transmitted via displays and based on the subcortex of the brain.

Symbolic communication (verbal and nonverbal) has a common basis in language competence and is related to left hemisphere cerebral processing, while spontaneous communication – is related to the right hemisphere [16].

Some authors (Hargie et al., 1994) define the goals of nonverbal communication depending on the context in which it is used:

- One of its main functions is to replace speech /for example in deaf people.
- Another purpose is to accompany the spoken words, and this is associated with the “non-verbal leakage of information”, when the verbal message contradicts the truth: redness, sweating, tremor, and muscle tension.
- Also, non-verbal communication graphically illustrates what is said: emphasizes parts of verbal utterances (by emphasizing a word more, using pauses, varying tone, and speed of speech).
- It helps to define the relationship: if one wants to influence the other by dominating him, he can use a louder voice, to speak louder, to choose a central position at the table or in the room, to stand in a higher position, to sit behind a desk, interrupting

the other when talking, long watching the other, etc. [17].

Sometimes communication between dentists and patients can be exceptionally challenging when the patient and the dentist do not speak the same language. In these cases, most respondents encounter language-related communication barriers. Some studies suggested recommendations to improve communication included access to professional interpretation services as well as dentist technique/attitude to communication supplemented with means of non-verbal communication [18].

Non-verbal communication is realized on the basis of the following types of manifestations:

- Haptics (physical contact, touch).
- Gestures.
- Body Language and Posture.
- Facial expressions.
- Eye Gaze (eye contact).
- Paralinguistic signs.
- Proxemics.
- Appearance.

### 3.4.1 Haptics (physical contact, touch)

This is the earliest form of social communication. In most cultures, touch between adults is regulated by strong social conventions. The person who stands up, uses wide and expansive gestures, and feels free to touch the other is seen as the “boss” in gender and business relations. According to Pearson (1995), women are more likely to initiate physical contact and more likely to touch them. Women tend to use touch to convey care, concern, and nurturance. Men, on the other hand, are more likely to use touch to assert power or control over others [19].

Physical contact serves several functions, which are related to the context in which it takes place and the relationship between the partners:

1. functional / professional.
2. social / education.
3. friendliness / warmth.
4. love / intimacy.
5. sexual arousal.

In medical/dental practice, touch can be used as a means of calming the patient, as well as a means of control.

### 3.4.2 Gestures

In most cases, gestures are used to emphasize what is said, very often people use hand movements to stimulate a faster thought process when they cannot think of the right word, for example. In general, gestures are used for economy of expression, certain effect on the listener, as a means of supplementing a sentence, shortening the speech when time is short, clarifying a potentially ambiguous word. Gestures and facial expressions can be used to exchange information and messages at times when verbal communication is impossible. The ability for the patient to signal in a certain way about his condition and feelings during treatment reassures him that he can be understood without speaking. Thus, he retains the ability to control the situation to some extent. A specific signaling system must be established so that treatment can be stopped at any time when the patient needs more anesthesia, wants to rinse, or just wants some rest. The most common signal is a show of hands.

### 3.4.3 Body language and posture

Unlike gestures, which are short-term actions involving a small part of the body, postures are actions that involve a larger part of the body over a longer period of time. The posture may indicate differences in status, positive or negative attitudes, and a desire to persuade. During the interaction, visibly irrelevant behaviors, called by Schefflen "quasi-courtship" (fixing clothes, hair, tie, crossing legs, etc.) are performed at critical moments to express interest and commitment to a particular person [20].

In medical (dental) practice, posture of the body is a very important element of non-verbal communication. Trust is created when the doctor is facing the patient; he looks him in the eyes as he speaks and carefully observes patient's reactions. In this way, details in the patient's behavior can be captured, as well as warmth, concern and naturalness of the behavior can be

given, attention can be paid. Conversely, when the doctor speaks with his arms crossed in front of his chest, when he is turned in another direction and his gaze is distracted, closedness and distance are transmitted.

### 3.4.4 Facial expressions

Charles Darwin mentioned that facial expressions play a significant role in communication, as they are extremely good indicators of basic emotions. They are universal, and research shows that menacers in many cultures contain more triangular and diagonal lines than round shapes. Women smile much more often than men. A smile can express interest, goodwill, sympathy, empathy, but also ridicule, sarcasm, etc. Studies show that the lower part of the face is associated mainly with socially oriented and controlled expression, and the upper part – with real feelings. Another important fact is that facial expressions confirm or not what was said. The patient observes the doctor so that he can perceive more information. Facial expressions can calm, confirm, draw attention to something important. The eyes betray the emotions not only of the patient but also of the doctor. Anxiety, boredom, indifference can be easily felt.

### 3.4.5 Eye gaze

It is one of the most common and powerful nonverbal cues. Eye contact usually signals focused interest and leads to increased physiological arousal in the recipient, but the exact meaning of eye contact depends on the specific interaction, because it can signal intimacy, commitment, and attention, but also dominance, aggression, or superiority. The eyes also indicate our own state of excitement. In his book "The Tell-Tale Eye", Edward Hess (1975) said that in interpersonal communication, the human eye emits the most revealing and accurate signals of inner attitude because it is a central, key point of the body and eye pupils function independently of its other parts [21]. The pupils of the eyes dilate or contract – both according to the intensity of the light and according to the inner attitude and mood of the person when they change from positive to negative and vice versa [22,23]. When someone gets excited, the pupils of his eyes dilate, and their size can be up to four times larger than normal. Anger and negative emotions cause the pupils to contract and the eyes become "like beads" or "like a snake".

According to Freeman & Humphris (2010) eye contact can convey to patients that the dental health professional is interested, willing to understand their needs and feels empathy for them. Patients who avoid making eye contact with the dentist are often frightened of dental treatment, the dentist's response to their behavior or are anxious about what they have to say [24].

### 3.4.6 Paralinguistics

These are the meaningless aspects of speech: intonation, rhythm, pitch, loudness, tempo, accent, voice quality, timbre. Studies using speech spectrograms to analyze the speech patterns of psychiatric patients and normal subjects outline four types of voice:

- acute, whining, childish and agitated voice, found in some neurotic patients.
- "flat" voice, typical for depressed and dependent patients.
- „hollow" voice found in some patients with mental retardation or brain trauma.
- extroverted, confident, moaning voice, often found in well-adjusted healthy people.

Dentists can certainly exercise a great deal of control over how their voice is used. A strong, confident voice is an essential part of effective interpersonal communication. The subtle benefits of effective vocal power should not be underestimated as they can project a positive image of confidence and professionalism [25,26].

Variation in pitch and tempo of doctor's voice are a particularly important source of information, as slow tempo and small variations in height signal positive emotions (activity, surprise, pleasant emotions). Trembling, loss of voice and stuttering express anxiety and excitement.

### 3.4.7 Proxemics

Proxemics (the role of space in behavior) has three aspects: territoriality, personal space, and orientation.

Social distance can be classified into four main areas (of territoriality) depending on the aims of the interaction [27]:

- intimate /0–60 cm/: love, calm, or fight; people can be touched.

- personal /60–120 cm/: friends, acquaintances, verbal exchanges predominate, not so much touching.
- social /1.20 – 3.30 m/: appropriate distance for professionals in interaction with their clients; touch is not possible and is not acceptable.
- public /more than 3.30 m/: the distance, which is maintained in an impersonal and formal relationships, at official meetings with important public figures.

The main functions of personal space are defensive and self-protective, on the one hand, and on the other hand it is an indicator of attraction and liking. Status differences, gender, age, class, and culture influence the way interpersonal space is used.

Orientation refers to the position of the body as a whole. Physical distance and orientation are inversely related, because in direct face-to-face orientation the distance is greater, while lateral orientation is related to a closer distance. Sitting next to each other is perceived as an act of cooperation, while the face-to-face orientation conveys a suggestion of competition. Conversations are easiest and hassle-free when the interlocutors sit at right angles to each other.

The work of the dentist is carried out in great physical proximity. The area where dentists work is the intimate area. In dental practice, there is physical contact, which in many patients is consciously or unconsciously rejected and causes resistance behavior. People are different. There are patients who find it extremely difficult to allow intimacy, physicality. That is why empathy, warmth, trust are extremely important for overcoming this barrier.

### 3.4.8 Appearance

It refers to attractiveness, clothing, hairstyles, morphological features, etc. Through them the so-called "filter of trust" is facilitated or hindered, from the "man-man" system – teachers, doctors, politicians, psychologists, etc. Non-verbal information can also be conveyed through the way people dress and take care of their appearance.

Clothing covers 90% of the body and has a powerful impact on how other people will judge a person's reliability, credibility, social success, expertise, and status. The appearance of doctors has always been considered important in

communication. It is considered a form of respect for the patient and an attitude towards oneself.

Working conditions in the dental office also have a strong influence. They include not only the mandatory high hygiene, necessary dental equipment, and comfortable furniture, but also appropriate colors, music as a background, fragrances, paintings, health education materials. The psychological influence of colors, music and aromatherapy has been proven. Well selected, they can have a calming and relaxing effect, reduce tension and fear. For example, the aroma of mint, lavender relaxes and soothes. Bright warm tones in the range of yellow-red favorably affect the mood. It is recommended that the colors should be light, soft, pastel.

#### 4. CONCLUSION

Cooperation between the dentist and the patient is needed to reduce the level of patient's anxiety, to establish trust and readiness for participation in the treatment process. It is important for the dentist not only to be a good specialist, but also an excellent psychologist. As mentioned above, non-verbal message in communication has a great significance. Its effect is often stronger than the words spoken. However, every professional should know that if there is a discrepancy in the verbal and non-verbal message, the patient develops anxiety, mistrust, and confusion. People who lie use more ambiguity in speech, more speech errors, a raised tone of voice, etc. This is a great mistake and should be avoided at all costs. Therefore, developing effective communication skills by the dental practitioners is essential. They are a must in dentist-patient relationship and skills of life-long learning [28] as they lay the foundation of the quality of treatment, patient satisfaction and excellent professional performance of duties in dental practice.

#### CONSENT

It is not applicable.

#### ETHICAL APPROVAL

As per university standard guideline, ethical approval have been collected and preserved by the authors.

#### COMPETING INTERESTS

Author has declared that no competing interests exist.

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