HOW TO ASSESS COMMUNICATION SKILLS IN PEDIATRIC DENTISTRY?

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Abstract

Communication skills are essential for professional performance in Health Sciences. As a result, they are collected within the generic skills that students should acquire during their training period. These skills are not tied to specific matters and therefore they are not included in a formal educational planning. They are rarely included as educational objectives to be achieved, and therefore they are not subjected to an assessment certifying its acquisition by the student.

In Pediatric Dentistry communication skills are particularly relevant as they are part of the techniques of behavioral control of children in the dental office. Furthermore, they have such a specific uniqueness of child patient and the dental environment that can hardly be acquired by the student in Dentistry Degree throughout their training period transversely. These skills should be developed and be acquired by the student in the context of matter (Dentistry) and mastery by the student, objectified during clinical practice with child patients.

In order to facilitate and confirm its acquisition by the student, we have developed assessment tools based on checklists.

Methodology: we have relied on the Consolidated Medical Education experience and Kalamazoo consensus conferences I and II, adapting the situation to the dental context. From the identification of the key elements of the dentist-Child communication, more objectified and observable behaviors have been structured in subcompetences. His analysis has allowed the design of a checklist of the behaviors observed.

Results: We have compiled a checklist and rating scale, which establishes different categories in student performance of various communication behaviors (Runlevel). Application areas: during interactions with real patients and / or video recorded interactions.

Conclusions: The incorporation of clearly specified evaluation criteria involves a benefit for the teacher and the student, who know what will be evaluated and therefore what to learn and what to teach. We have achieved a significant improvement in the objectivity of the evaluation, facilitating a more structured evaluation.

Keywords: Innovation, technology, research projects, etc. [Arial 10-point, justified alignment].

1 INTRODUCTION

The reform of university degrees driven by the Bologna Process involves a new offer of Degrees that have to take into account pedagogical innovations of great importance, including the learning objectives, which become more complex tasks as knowledge, skills and attitudes (competencies).

1.1 Transversal Competences

The European Higher Education Area (EHEA) highlights the importance of mastering transversal competences along university education. The different curricula should collect these guidelines and specify, with the specific competences for each degree, general transverse competences. The first ones characterize a profession, being part of the so-called professional profiles. The transverse or generic competences exceed the limits of the disciplines and provide necessary skills to effectively practice any profession.

The Tuning [1] project gathers the most widely accepted competences in the European convergence process. Generic or transverse competences should be part of the educational objectives of the studies of health sciences and must be explicitly formulated between them and promote their achievement by students [2]. Different initiatives have emerged in our immediate educational environment picking this spirit and projecting the entire scope of the Health Sciences (Complutense Research Conference for Grade students in Health Sciences) [3].

1.1.1 Communication in Health Sciences

There is no doubt that among the transverse competences, communication is one of the core parts of the competence of the health professions. Communication is not something that depends on the way of life of every professional or a secondary dimension versus clinical dimensions. Currently the communication is considered as a dimension of the competence of health professions that can be taught, learned and assessed [4]. However the teaching of communication skills has a relatively short life in the degree course in Health Sciences, including Medicine, who comes from a consolidated experience.

The care relationship with the patient is the framework in which it has developed the largest baggage of objectives, content and methodology towards the learning of communication. Some expert consensus conferences have debated the key elements of communication in these clinical encounters, which must be taken into account when teaching and evaluating programs in medical education [5].

2 PEDIATRIC DENTISTRY

Basically the subject Pediatric Dentistry will provide the Degree in Dentistry student the necessary competences to enable him to carry out "the planning and implementation of pediatric dental treatment of limited complexity in infantile patients". In a simplified manner it would be dentistry applied to the child. The achievement of this final goal is reached after studying the two subjects in which it´s unfolded: Dentistry I (6 ECTS) and Dentistry II (12 ECTS), taught in 3rd and 4th year respectively. The student in the first year receives a mainly preclinical practical training. Once this preparatory phase is overcome the student is incorporated into the 2nd year in clinical practice with child patients. Preclinical formation, based on the simulation, allows the student to approach clinical procedures, to be subsequently performed on the patients. However, this training is not able to reproduce faithfully aspects of communication with the patient. Precisely in an attempt to approach the reality of child-dentist encounter we have designed, with the help of the computer, a teaching tool, which we presented in the last Congress. [6]

2.1.1 Communication in Pediatric Dentistry

One of the key elements of dental care in the child, which marks a fundamental difference between the treatment of children and adults, is related to communication. Adult Treatment involves direct dentist-patient relationship, while in children treatment is established a triangular dentist-child-parent relationship. Furthermore, the practice of dentistry for children is based on the ability of the professional to guide them through their dental experiences, which is a very particular relationship in which one party (the child) is constantly changing. The success of dental practice in children depends not only on the technical skills of the dentist, but also their ability to achieve and maintain cooperation of the infant.

It´s not surprising they have developed extensive training modules that emphasize the need to acquire some skills, based on communication, facilitate monitoring of the child's behavior in the dental office. This learning content is a prerequisite for students before their incorporation into clinical practice. The student must acquire these skills and receive practical experience that allows its application. Until now the teacher was limited to the assessment of the acquisition of theoretical content through written tests, while the finding of dominance in the field of practice, suffers from a great deal of subjectivity.

3 ASSESSING COMMUNICATION COMPETENCES

The evaluation should be seen embedded in the teaching-learning process, in fact it is one of its key elements. The evaluation has, among others, a regulatory function of learning.

Students prioritize study areas subject to evaluation. Following this criterion, also the assessment of communication skills as relevant in the field of medicine and by extension other Health Sciences has been prioritized in conferences of experts [7].

Evaluation methods of communicative dimension of competence of professionals are determined by direct observation and the use of checklists, either in interviews with real patients or by simulation with standardized patients (of little application to children) and through of the objective structured clinical assessment (OSCE).

In our teaching field the limited experience in assessing competences related to communication has been made with adult patients through OSCE testing, being the extrapolation difficult to childhood environment.

4   OBJECTIVES

Starting from the premise that competence assessment can also boost their development.

In the clinical encounter dentist-child, establish those areas where effective communication is the key. From them:

- 1st design a tool that allows assessment of communication competences acquired by the student and brought to light during their clinical activity.
- 2nd Harnessing the potential of evaluation to help achieve the training objectives.

5   METHODOLOGY

Taking as a starting point Kalamazoo I and II consensus statements [5,7] we have analyzed the clinical encounter dentist-child and set times and procedures that require more effort to communicate between them. In some cases it is a communication for the purpose of gaining the trust of the child, and in other cases the objective is to direct and control their behavior.

In each of these moments / procedures we define 3 levels of performance that describe the desired level of compliance in terms of excellent, adequate and poor. Given that the different levels include several items, and they won´t always be fulfilled, we consider a scale of 5 scores facilitate the task of the evaluators, that includes the intermediate terms fair and good..

6   RESULTS

6.1.1 Clinical Meeting dentist-child

We have selected the most relevant moments based on two criteria: the most common and those that represent a higher level of behavioral control. Based on them we have established eight stages:

(1) Communication in the waiting room;

(2) Communication to the fulfillment of the history;

(3) Exploration;

(4) Taking impressions;

(5) Perform intraoral radiographs;

(6) Tooth extraction;

(7) Emergency trauma;

(8) Child goodbye.

The first 3 are related to the first contact with the child and demands from the student great care in the forms, because it establishes the future relationship with him (Table 1).

1. COMMUNICATION IN THE WAITING ROOM

1.-POOR ☐   2.-FAIR ☐ 3.-ADEQUATE ☐4.-GOOD ☐ 5.-EXCELLENT ☐

• Going to the cabinet he does not look at the child • When he calls the child he does not call him by name or mistakes it for another name • Going to the cabinet the child is called from the door • Taking the child to the cabinet, he goes before • Taking the child to the cabinet, he goes behind him	• Going to the cabinet, looks at the children but doesn´t greet him by his name. • Going to the cabinet, gets to the mother and tells her that her son must go inside. • Going to the cabinet, goes beside the children.	• Going to the cabinet, looks at the child and greets him by his name name • Going to the cabinet, gets to the children and tells him that he must go inside. • Taking the children to the cabinet, he keeps contact with the children, going with him.

2. COMMUNICATION DURING ANAMNESIS (boy 8 years old)

1.-POOR ☐   2.-FAIR ☐3.-ADEQUATE ☐4.-GOOD ☐ 5.-EXCELLENT ☐

• Talking with diminutives as younger than their age to be sweeter • Ask if in other appointments he has been hurt, or if he has been punctured ... • Ask if he wants his mother or father to come with him.	• Talking according his age and letting him asks all he wants. • Tell him that we are going to do no harm, that it won´t hurt .... • Tell him his parents won´t enter, without explanation.	• Talking him like he was older, and guiding us including when he can ask. • Never use words like hurt, pinch, hurt, fear... • Explain to him that is better to be in the cabinet without his parents.

3. EXPLORATION

1.-POOR ☐   2.-FAIR ☐3.-ADEQUATE ☐4.-GOOD ☐5.-EXCELLENT ☐

• Leans the child on the dental chair and starts exploring without explanation • Explains the procedure inappropriately to the child's age • He pays no attention to the child when he explores him • In the absence of cooperation employs child behavior management techniques not correct for that situation • After the exploration raises the child abruptly • Finish the procedure and raise the child without paying any attention and even back to him	• Leans the child on the dental chair explaining before ("I'm going to lean you, this chair becomes a bed") • He´s going to explore the child, explaining that is going to look his teeth. • During the examination speaks to the child. • Finish the procedure and raises the child attentively	• He sits the child in the chair, explaining it before and when he leans him passes his hand over the chest to make him feel safe. • Before exploring uses the technique of "Tell-Show-Do" • During exploration, he talks with the child, explaining what he is doing. • Given the lack of cooperation of the child, uses successful conduct management techniques for that situation. • Ends exploration, raises the child attentively, congratulates and thanks you for his cooperation

Table 1. Checklist para evaluar la comunicación en el primer encuentro Odontólogo-niño.

Methods 4 and 5 are associated with very usual diagnostic tasks, and the student must quickly familiarize with the difficulties arising from the point of view of communication (Table 2).

4. MAKING DENTAL IMPRESSIONS.

1.-POOR ☐ **2.-FAIR** ☐ **3.-ADEQUATE** ☐ **4.-GOOD** ☐ **5.-EXCELLENT** ☐

• Starts the procedure without explanation ("Open your mouth" and making the impression) • He diverts the attention of the child during the procedure (spoke with the assistant) • Explains the procedure inappropriately to the child's age • The child removes the tray without the alginate has set and does not prevent. • When the alginate sets he removes the tray without explanation and/or abruptly • Finish the procedure and raise the child without paying any attention and even back to him	• Start the process with little explanation ("I will make a mold of your mouth") • During the impressions speaks with the child. • The child tries to remove the tray without the alginate has set but is prevented from • When the alginate sets he tells him that he will remove the tray. • Finish the procedure and raises the child attentively	• Starts the process, explaining it carefully and adapted to their comprehension • During the impression tells the child to breathe through the nose and talk to him continuously • The child tries to remove the tray without the alginate has set but is prevented from it, he further motivates and explain the importance of waiting • When the alginate sets he tells him that he is going to remove the tray, and explain what sensations he is going to experience. • Finish the procedure raises the child attentively, congratulates him and thanks him for his cooperation

5. TAKING INTRAORAL RADIOGRAPHS.

1.-VERY BAD ☐ **2.-FAIR** ☐ **3.-ADEQUATE** ☐ **4.-GOOD** ☐ **5.-EXCELLENT** ☐

• Puts a leaded apron and orders the child to open his mouth to position the image plate without explanation • Enters the image plate in the child's mouth and holding his hand, rests his finger on it to hold it • To do the radiograph, approaches the intraoral X-ray device, he positions it and goes out of the room without any explanation to the child. • Make the shot without warning or visually check that the child has not moved. • Removes the lead apron and the plate and reveals it without any comment to the child	• Tells the child that he is going to do an x-ray • Alerts that will put a lead apron but does not give explanations of its function • Asks the child to open his mouth and put his hand to hold the plate without showing first • Explains that will go out of the room, but he does not specify why. • Check visually that the child has not moved and shoots Rx equipment without notice • Removes the plate of the child's mouth, takes away the apron, and says he is going to reveal it	• Explain to the child what will he do an x-ray shows the apparatus and the Rx plate • He tells the child that hes should place a leaded apron over his body to protect him. • Cordially requests the child to open his mouth to insert the image plate • Explains how to collaborate, holding the plaque in his mouth without moving • Checks visually that the child has not moved and tells you hear a beep • Removes the apron and the plate and explains that he will reveal the X-ray, then he will be back

Table 2. Checklist para evaluar la comunicación en procedimientos diagnósticos.

The following two procedures (6 and 7) are selected clinical procedures that involve a great anxiety for the child and behavioral control is essential (Table 3).

6. EXTRACTIONS		
1.-POOR ☐ **2.FAIR** ☐	**3.-ADEQUATE** ☐ **4.-GOOD** ☐	**5.-EXCELLENT** ☐
- Starts the procedure without explaining to the child that is going to extract him a tooth - Leaves the syringe and the instrumental (forceps and dumpers) in view of the child - Performs local anesthesia without explaining anything to the child - He does not check that anesthesia is effective and begins to dislocate the tooth without giving any indication of what the child will feel - Performs extractions and place a gauze over the socket, ordering the child to bite - Gives no instruction to the child and prompts him to quit the cabinet	- Explains to the child that is necessary to make the tooth extraction without further arguments. - Ensures he will not feel pain - Maintains at all times the instrumental out of sight of the child and makes Anesthesia - Verify the correct performance of anesthesia without asking the child collaboration - Explains to the child that will extract the tooth, and if he feels pain, he must alert him to stop - Once the extraction is done tells the child that they have already finished, he puts a gauze over the socket and says he has to bite it for half an hour	- Explains to the child that is necessary to make the extraction of the tooth giving reasons - Assures it will not hurt because is going to sleep the tooth first. - Maintains at all times the instrumental out of sight of the child and performs anesthesia telling how to act during it. - Verifies anesthesia asking the child to tell him if he feels something when he touches the tooth with an explorer. - Explains that he will start moving the tooth and he will stop to confirm that he only feels force, but it does not hurt. - Continues the extraction keeping the focus on the child continuously - When he does the extraction tells it to the child, places a gauze over the socket and tells him to bite - Talks to the parents and child together and gives them instructions to be followed
7. EMERGENCY BY TRAUMA		
1.-POOR ☐ **2.-FAIR** ☐	**3.-ADEQUATE** ☐ **4.-GOOD** ☐	**5.-EXCELLENT** ☐
- Starts treatment without making any examination the child - Does not fulfill a medical history to know when, where and how much time has elapsed since the trauma occurred - Does not perform any additional radiographic testing	- Fullfills a medical history of the child. - Asks when and where and the time elapsed since the trauma occurred - Does additional radiographic tests.	- Talks to the child's parents and makes a thorough history - In clinical history reflects when, where and the time elapsed since the trauma occurred - Makes the child relevant radiographic additional tests, three periapical radiographs in different positions - Performs pulp vitality tests

Table 3. Checklist para evaluar la comunicación en procedimientos clínicos

Finally the child goodbye (8), represents both the "closing" of the relationship but also the way we started planning the next visit (Table 4).

8. CHILD GOODBYE		
1.-POOR ☐ 2.-FAIR ☐	3.-ADEQUATE ☐ 4.-GOOD ☐	5.-EXCELLENT ☐
• When leaving the cabinet does not accompany the child to the waiting room • When he says goodbye he does not call him by name or confuses the name • The child goes out messy and full of stains on clothes • Accompanies the child to the waiting room, but do not talk to their parents	• Accompanies the child to the waiting room. • Talks to parents in the waiting room and explains the treatment done to his son • When leaving the office with the child accompanies him to the waiting room but maintains a distant attitude	• Exits with the child from the cabinet and maintains a caring attitude with him • The child goes to the waiting room completely clean • Accompanies the child to the waiting room, he talks to the parents, explains the treatment done to the child and praise his good behavior

Table 4. Checklist para evaluar la comunicación en la despedida del niño.

6.1.2 Levels of implementation and application areas

The list provides an operational definition of learning goals and what implies a satisfactory performance. With this design, it will guide teacher observation while guiding feedback in learning and improving performance patterns.

For its application we contemplate the possibility of 2 observers: the teacher and the students themselves (peer review), to strengthen its training aspect. The evaluation was carried out in two areas:

- (1) Direct observation during interactions with real patients.
- (2) Rating recorded video / audio interactions.

We have discarded another widespread application area in the relationship with adult patients, the rating in simulated encounters, due the difficulty of applying this methodology with child simulated patients.

7 CONCLUSIONS

We consider the acquisition of communication competences by the Pediatric Dentistry student would be strengthened with the design and implementation of assessment tools that can be part of a formative evaluation that creates learning opportunities or guided feedback and advice.

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