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Original Research Article

Body Expression Skills Training in a Communication Course for Dental Students

Vassiliki Riga[1], Anastassia Kossioni[2]

[1]Department of Educational Sciences and Early Childhood Education, School of Humanities and Social Sciences, University of Patras, University Campus, Rio Patras 26504, [2]Department of Prosthodontics, Dental School, University of Athens, Thivon 2 Goudi, Athens 11527, Greece

ABSTRACT

Background: In the health professions, competency in communication skills is necessary for the development of a satisfactory physician–patient interaction. Body expression is an important domain of the communication process, often not adequately addressed. The aim of this study was to describe the methodology and content of a pilot introductory training session in body expression for dental students before the beginning of their clinical training. **Methods:** The educational methods were based on experiential learning and embodied training, where the session's content focused on five themes representing different phases of the dental treatment session. A questionnaire was distributed before and after the session to assess any changes in students' self-perceptions in communication skills. **Results:** There were statistically significant improvements in the total values of the students self-perceptions of their communication skills obtained before and after the training and in specific elements such as small group situations, performing an interview, understanding the feelings of others and expressing one's own feelings. **Discussion:** The dental students in the present study felt that this preclinical experiential learning session improved their communication skills. The feedback from this training experience will enable further development of an effective communication course for clinical dentistry.

Keywords: Body expression skills, communication competencies, dentist–patient interaction, experiential learning, embodied training

Background

The duration of undergraduate dental training at the Athens Dental School is five years and students start their clinical training with real patients at the sixth semester of their studies. A few theoretical lectures on communication are offered in the first semester of the undergraduate dental studies program, with the major part of communication training provided by clinical teachers acting as role models.

Dental care is provided in a sensitive area (the mouth), with the two parties involved often being under stress[1] and unable to verbally communicate. The patient's satisfaction depends not only on the clinical skills of the clinician but also on his/her non-verbal behaviors, such as smiling, looking at the patient, having a non-dominant tone of voice, head nodding, hand gestures.[2,3]

Body expressions, as a significant part of the communication process, "provide information about the emotional state of the producer, but also signal his action intentions".[4] Body expression skills refer to a holistic approach in human interaction including verbal and non-verbal somatic cues. Training in body expression skills necessitates appropriate teaching techniques, such as experiential learning and embodied training. During experiential learning, experience plays the central role in the learning process and knowledge is created through the transformation of experience.[5] Embodied or somatic training refers to the empirical knowledge obtained through senses, emotions, actions, mind and body. It is another way of acquiring knowledge through the physical and sensory involvement of the individual.[6]

The aim of this study was to describe the methodology and contents of a pilot introductory training session in body expression using innovative teaching techniques for

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Address for correspondence:
Dr. Vassiliki Riga, Department of Educational Sciences and Early Childhood Education, School of Humanities and Social Sciences, University of Patras, University Campus, Rio Patras 26504, Greece. E-mail: vriga@upatras.gr

third-year dental students before the beginning of their clinical training.

Methods

A pilot one-half-day introductory session based on body expression training was developed. The objectives of the course were identified by a clinical dental educator and the course was developed and delivered by a Lecturer in the Sciences of Education, specialized in "Body Expression". Ethical approval was obtained from the National and Kapodistrian University of Athens Dental School Committee for Research Ethics (Research Protocol #156A/2010). The session was provided to all students of the sixth semester of dental studies ($n = 114$; 74 females and 40 males), before starting treating patients in the clinics. To reduce the number of the attendants, the students were divided in two groups of 57 students each and the same session was delivered twice (once for each group).

The aim of the training session was to improve the body expression skills of the dental students to facilitate the delivery of clinical dental care. According to the expected outcomes, after the completion of the training students should be competent at:

- Identifying verbal and non-verbal behavior that facilitate the communication with the patients and the delivery of dental care
- Giving examples of effective and ineffective non-verbal communication during the interview with the patient
- Distinguishing the obstacles that may be involved in the interpersonal dentist–patient communication.

The training was based on two educational techniques: Experiential learning and embodied training. During experiential learning, the students were first exposed to an experience and then they were encouraged to reflect upon it and express their feelings, aiming at developing new competencies. During embodied training, students activated their bodies for performing various tasks. Details on the use of these techniques are described below.

The session included an introduction and five themes with duration of 20–45 min each. At the beginning of the session, the students were informed about the learning objectives and the significance of communication competency in their social and professional life. Team-reflection questions were posed. For example: What is communication? What are the conditions and requirements for effective communication? The students worked in small groups of 5–6 persons followed by a plenary discussion.

First Theme: Greeting the Patient (Before the Interview)

The focus of the first theme was on the first contact with the patient. The aim was that the students realize that it is particularly important to devote adequate time to the patient in order to feel comfortable and relaxed before receiving dental treatment. Through experiential activities, students performed exercises in observing and describing the behavior of a person (how one thinks, how one reacts), in order to better approach him/her and communicate more effectively. For example, the students in pairs tried to identify the feelings of their colleagues without verbal communication. They then discussed in plenary about the different communication and interpretation techniques they used.

Second Theme: First Body Contact with the Patient

Using experiential learning, the students again in pairs were first exposed to an experience (e.g. personal space violation) and then they were encouraged to reflect upon it and express their feelings (e.g., some of them felt threatened) aiming at developing new competencies (e.g., respect one's personal space). Emphasis was given on eye contact and non-verbal communication skills (posture and position, movement, facial expression, tone of voice) in order to detect the emotions of the patient during the interview. The theme was completed with the "handshake", which is the first physical contact, given in the welcome and also the last on the departure of the patient. Using embodied training they investigated how different feelings are shown through different styles of handshakes.

Third Theme: Active Listening (During the Interview)

Active listening was elaborated with experiential learning using appropriate clinical scenarios. The students again worked in pairs. One student talked about a big problem he/she was facing and the other had to listen carefully without interruptions, making eye contact, showing empathy, and using appropriate encouraging questions (e.g. how did you feel?). In a different scenario the student was indifferent, did not make eye contact and continuously interrupted the colleague. The students then discussed their feelings on the different occasions. The purpose of this theme was to highlight the importance of active listening rather than data collection *per se* in history taking, paying attention to the description of symptoms, but also encouraging the expression of the patient's feelings, understanding fears and emotions, and showing empathy toward pain and anxiety.

Fourth Theme: Perceiving Patient's Body Expression and Using His/Her Own Body Expression (During the Interview)

The students underwent practices to show positive, responsive facial expressions and head movements, such as smiling and raising their eyebrows, to show awareness of the patient's message (embodied training). They used non-verbal communication strategies (non-verbal codes, learning by observation) to express their wish and understand the message of others. One of the tasks was to solve a problem without verbal communication; for example, they formed a

line based on their birthdays, only by using body language cues (embodied training).

Fifth Theme: End of the Treatment Session

The course ended with the concluding theme of the clinical session: The patient should leave with positive feelings, improved self-esteem, sense of security and increased confidence in his/her dentist. Using embodied training, the students moved freely in the room and communicated with their colleagues using body language (e.g. handshakes, touching shoulders). They also wrote on sticky notes a positive characteristic of their colleagues and gave it to them. The aim was to increase their self-esteem.

Self-Assessment

The students recorded their self-perceptions on their communication skills, before and after the training, by completing an anonymous questionnaire. The identification mark was a personal pseudonym that the students used in both questionnaires in order to be able to match the data.

The post-session questionnaire was distributed four weeks later to leave some time for reflecting on the whole experience. It was decided not to directly measure the students' communications skills at this point, as the session was very short and the students would enter the clinics in the following week, and have the opportunity to promote their communication skills with real patients. Furthermore, a clinical tutor would supervise and assess their performance in professionalism and communication.

The development of the self-assessment questionnaire was based on previously published questionnaires by Ford and Wolvin[7] and Wiemann.[8] The questionnaire explored communication competencies at various levels and skills as human interaction includes simultaneously both verbal and non-verbal cues. It contained 24 items, which were scored from 1: Strongly disagree to 5: Strongly agree.

The internal consistency coefficient (Cronbach's alpha) of the self-assessment questionnaire was calculated to test the instrument's reliability and found to be high (0.87). As parametric assumptions were not met, non-parametric tests were performed with Wilcoxon Signed Rank Tests used to identify any variation in the students' ratings before and after the session. Level of statistical significance was set at $P \leq 0.05$.

Results

Seventy questionnaires were analyzed (response rate 61%), as some students failed to provide the same pseudonym in the post-questionnaire, or did not complete it. Statistical analysis using Wilcoxon Signed Rank Test for repeated measures revealed an overall statistically significant difference in the total values obtained before and after the communication session ($P < 0.001$) [Table 1]. Analysis of the individual items revealed significant improvement in dealing with small group interaction situations and in conducting an interview. The

Table 1: Students' self-perceptions of their communication skills before and after the completion of a pilot training in body expression skills

Competencies	Pre-course Mean median	Post-course Mean median	P[a]
Feeling confident about yourself	3.17 3	3.39 3	Ns[b]
Feeling comfortable with others' perceptions of you	3.33 3	3.56 4	Ns
Understanding nonverbal messages	3.20 53	3.31 3	Ns
Conducting an interview	3.07 3	3.63 4	<0.001
Reasoning with people	3.35 3	3.57 4	Ns
Completing tasks in a small group situation	3.69 4	4.11 4	0.004
Interacting with others in a small group situation	3.54 4	3.84 4	0.040
Feeling comfortable communicating in a small group situation	3.56 4	3.90 4	0.009
Persuading people	3.17 3	3.39 3.5	Ns
Adapting to changing situations	3.31 3	3.54 4	Ns
Treating people as individuals	3.53 4	3.86 4	0.020
Being a good listener	3.81 4	3.83 4	Ns
Managing conflict in personal relationships	2.87 3	3.31 3	0.002
Asserting yourself (without becoming aggressive)	2.94 3	3.21 3	0.021
Generally knowing how others feel	3.21 3	3.51 3.5	0.023
Letting others know you understand them	3.47 4	3.84 4	0.007
Generally knowing what type of behavior is appropriate in any given situation	3.30 3	3.53 4	Ns
Being supportive of others	3.86 4	3.89 4	Ns
Easily putting yourself in another person's shoes	3.20 3	3.53 3.5	0.016
Being flexible	3.31 3	3.47 4	Ns
Like to use the voice and body expressively	3.31 3	3.41 3	Ns
Finding it easy to get along with others	3.61 4	3.74 4	Ns
Using language appropriately	3.61 4	3.73 4	Ns
Generally saying the right thing at the right time	2.99 3	3.23 3	Ns
All	3.35 3	3.60 4	<0.001

[a]Wilcoxon signed rank test, [b]non-significant

students also felt that they could better manage conflicts and assert themselves without being aggressive. Empathy was also improved as the students felt that their ability to know how others feel and the ability of putting oneself in another person's shoes was intensified.

Discussion

All themes described in this session are relevant not only to the dentist–patient but also to all health provider-patient interactions (making the patient feel comfortable and relaxed during the interview, detecting his/her fears and emotions, encouraging the expression of his/her feelings, showing empathy toward pain and anxiety, identifying the potential inconsistency of verbal and non-verbal behavior, increasing the patient's self-esteem and sense of security and confidence in health care interactions). The importance of non-verbal communication in medical training has been strongly emphasized.[2,3,9] Increased patient satisfaction and adherence, such as appointment keeping, is influenced not only by the physician's clinical skills but also on non-verbal behavior, the ability to decode body movements, the ability to adapt to patients' expectations and judge their emotional status.[2,3]

Although one cannot assume that a brief introductory training is adequate to obtain the necessary communication competencies, students felt that this preclinical experiential learning session improved their communication skills. They felt that their competencies were particularly improved in small group situations, in performing an interview and in understanding the feelings of others as well as expressing their own. However, one should keep in mind that these inexperienced students may have overestimated their post-session skills.[10]

During the course, the students experienced a dental treatment session starting from the first contact with the patient through the interview through the patient leaving the dental office. Using experiential learning, they were exposed to various tasks/experiences that promoted self-reflection and development of new competencies. In some tasks, experiential learning was performed through embodied training (e.g., use of handshake, movement in space) where students came to physical and eye contact with their fellow students and tried to "read" body expressions. In the first two themes, students practiced observing the patient in order to understand his/her feelings and emotions and reduce his/her stress and anxiety. During the interviews (themes 3 and 4), it was important not only to collect information on which to base a diagnosis and provide treatment options, but also understand the patient's personal perspective regarding the illness and its personal meaning. In addition to perceiving body expression, active listening was equally important (theme 3).

The main study limitations are the short training time and the large number of students. Unfortunately, the intensive curriculum at this stage did not provide more teaching time to provide more comprehensive training in small groups. Further research is needed on an objective measurement of the changes in the students' behavior using a control group. In this pilot study, such a design was not possible for ethical and practical reasons. The feedback from this training experience will enable further development of an effective communication course for clinical training.

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