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ORIGINAL ARTICLE
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PREPARATION CONTENT UPDATING OF FUTURE DENTISTS TO PROFESSIONAL INTERACTION

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ABSTRACT

Introduction: One of the most important indicators of the professional training of future dentists, their competitiveness is the development of professional interaction.

The aim of the article is to update the content of the training of future dentists to engage in professional interaction.

Materials and methods: The study, completed during 2015-2018, was attended by 292 students of the specialty "Stomatology". The research uses the following methods: theoretical – analysis, synthesis, systematization and synthesis of scientific literature; empirical – testing, survey, monitoring, pedagogical experiment to find out the effectiveness of the developed content of training future dentists; methods of mathematical statistics.

Results and conclusions: For realization of the research purpose it was specially developed a discipline "Professional interaction of dentists" which is aimed at the realization of the tasks: the acquisition of future dentists theoretical knowledge on problems of communication and interaction; increasing the need for communication, implementing a variety of interactions; the formation of future dentists readiness for the implementation of professional interaction, positive communicative attitude to team interaction and receiving satisfaction from it. The program results of the study of the indicated discipline are presented, content of its modules is disclosed. Interactive forms which are used in the process of training future dentists (trainings, business games, problem situations, etc.) and teaching methods (dialogue-discussion, polygon, brainstorming, method of ideas generation, situational dialogues, etc.) are described.

The components of future dentist's readiness for professional interaction are developed: motivational, cognitive, operational and personal. The results of the pedagogical experiment, which proved the effectiveness of the implementation of the special course "Professional Interaction of Dentists", are presented. Statistical analysis of the results of the study made it possible to establish that after studying the special course in the experimental group there was a noticeable significant increase in the number of students assigned to the high level, in addition, the number of future dentists with a low level was significantly reduced.

KEY WORDS: future dentists, professional training, content, professional interaction

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INTRODUCTION

In today's conditions of economic and socio-cultural transformation, dynamic development, technologicalization and commercialization of the medical industry, including dentistry, the quality of medical care, and hence, the level of professional training of dentists, their competitiveness, the key indicator of which is the effective professional interaction. This requires special attention to the training of dental practitioners who, having performed various roles (therapist, surgeon, orthopedist, orthodontist, children's dentist, dental hygienist, dental technician, etc.), would be able to successfully interact with different groups of patients, colleagues, managers, nurses and other professionals, cooperate on the basis of trust, support, understanding, tolerance, compassion, respect for each other.

The problem of the professional interaction of a doctor, in particular a dentist, has recently become the subject of studies of a lot of scientists. Researchers pay attention to the

communicative preparation of doctors, in particular dentists (A. Hroisman, I. Kontsevych, I. Hardy), the formation of their professional competence (Ya. Kulbashna), professional-personal culture (M. Tararyshkina), communicative (V. Kipiani) and speech competence (M. Musokhranov), ethical and deontological culture (O. Gwyldis), readiness for interaction (S. Poplavska), tolerance (P. Babenko) and etc. The research emphasizes that in order to establish effective interaction with patients, the doctor should have a high level of professional speech (A. Korobkov, M. Lisovii), foreign language (G. Yepifantseva, L. Krysak) and intercultural communicative competence (N. Kalashnik). Scientists are united in the fact that the art of interaction between a dentist and a patient is a very complex, multifaceted and versatile process, where the doctor acts not only as a specialist who uses his knowledge and experience for the treatment, rehabilitation and maintenance of the patient's health, but also as a person, which analyses the

patient's treatment process in the context of moral, ethical, cultural, and religious values.

A significant number of scholars (I. Aartman, A. Almeida, K. Arnrup, M. Berman, M. Clarke, S. Cohen, B. Schouten, S. Wilson, etc.) emphasized that in conditions of growing competition among medical institutions of the stomatological profile, the quality of dental treatment, in particular the organization of professional interaction, prevention of initiation of conflict situations is influenced by the level of organization of their special communicative, conflictological, deontological training, mastering the knowledge of ethical and legal regulation of the daily work of a dentist. At the same time, the researchers singled out the communicative aspect of training as a leading one.

THE AIM

The purpose of the article is to uncover the updating of the contents of the training of future dentists to engage in professional interaction.

MATERIAL AND METHODS

The study, completed during 2015-2018, was attended by 292 students of the specialty "Stomatology" at the Dnipropetrovsk Medical Academy, Dnipropetrovsk Medical Institute for Traditional and Alternative Medicine, Lviv Medical Institute, Zaporizhzhia State Medical University, of which 148 people are experimental (EG), 144 - control (CG) groups, as well as 28 teachers of the above mentioned universities.

In the process of research, the following methods have been applied: theoretical – analysis, synthesis, systematization and synthesis of scientific literature; empirical – testing, survey, monitoring, pedagogical experiment to find out the effectiveness of the developed content of training future dentistry; methods of mathematical statistics to assess the statistical significance of positive changes in the results of experimental work.

RESULTS AND DISCUSSION

As A. Fastivets correctly notes, the level of health of the population and its preservation is a medical problem that requires the optimal solution and the need to improve the management of the system of measures to achieve the goal [1, p. 781]. But we are confident that the solution to this problem is also in the field of higher medical education. To achieve the purpose of the study, we have developed a discipline "Professional interaction of dentists", which is aimed at solving the following tasks: the acquisition of theoretical knowledge of the problems of communication and interaction by future dentists; increasing the need for communication, implementing a variety of interactions; the formation of future dentists readiness for the implementation of professional interaction, positive communicative attitude to team interaction and receiving satisfaction from it.

After studying the discipline students *must know*: styles, tactics and strategies for professional interaction; principles of interaction between the client and the dentist; the peculiarities of complex, conflicting relationships between the dentist and the client; classification of barriers of professional interaction; the essence of dentist's readiness for professional interaction; the formation of an individual style and the problem of professional deformation; types, features of verbal means of professional communication; *be able to*: provide practical work in different models, styles, tactics and strategies of professional interaction; have the mechanisms of attracting customer attention in the process of interaction; to create a positive emotional background of interaction; to solve complex situations in professional interaction; apply different strategies to prevent and overcome barriers to professional interaction; have different ways of influencing people during interaction; apply an individual style of professional dentist behavior in the process of interaction with different clients and employees. During developing the programed results of the discipline "Professional interaction of dentists" we were guided by the results of the study by S. Wang [2], K. Bond [3].

Modeling the content of the special course was based on the fact that students must, during their study, realize knowledge as their own value. Researchers argue that the content presented to students should "reflect the connections and relations of subjects, the phenomena of objective reality, and include the personal views of the one who speaks, his assessment, the relation to the objective connections of the outside world, ... emotions ..." [4, p. 185]. At the same time, comparing the new knowledge with his own - "a process of contradictory and ambiguous, peculiar discussion, dialogue (mainly internal), which results in the formation of an emotional attitude to the proposed knowledge and their initial acceptance or rejection" [5, c. 152]. It is the emergence of "cognitive dissonance" (L. Festinger) encourages man to overcome it. In an effort to reduce dissonance, the subject changes, overestimates the "source information" or changes his and his own behaviour [4, p. 242].

The program of the discipline is designed for 120 hours: lectures – 15 hours, seminars – 10 hours, practical classes – 15 hours, individual work – 24 hours, independent work – 56 hours.

The special course consists of two modules. The first module "The basis of professional interaction of the dentist" contains the following topics: Historical sources of professional interaction of the dentist; Professional interaction – the leading component of the professional activity of the dentist; Interaction of a dentist and a client, basic deontological norms; Interaction with complex clients. Barriers to interaction; Conflict designs of professional interaction. The second module "Readiness of the dentist to engage in professional interaction" involves the study of the following topics: Types and forms of behaviour of the dentist in the process of interaction with different people; Professional language and speech – the basis of the professional interaction of the dentist; Non-verbal means of

professional communication of a dentist; Computer tools for professional dentist communication. The topics of the seminar include: Professional roles of the dentist and the peculiarities of their interaction; Speech technique as the basis of the skill of professional interaction of the dentist; Individual style of dentist's professional behaviour; Methods and forms of conflict management in a trade organization. Strategies for resolving professional conflicts; Means and methods of self-regulation in professional interaction.

During the lectures and seminars, the following interactive teaching methods were used: dialogue-questioning (patient in the doctor's review, anamnesis), dialogue-arrangement, dialogue-sharing of impressions, dialogue-discussion (communicative partners are trying to work out a certain decision, to reach certain conclusions, give arguments and evidence), conversation polygon, "brain attack" ("brainstorming"), method of generating ideas (stimulates the activity and intuitive thinking of students in the process of finding ideas, suggestions, promoting integration at the information gathered, considerably increases the efficiency of the decisions making), the method "borrow a position" (aimed at working out discussion questions, subject to the presence of two opposite views), situational dialogues ("Dentist - patient", "Review patient dentist"), which is expedient to implement in dyads: teacher - student, student - student, student - doctor, student - ill, student - medical staff, student - group, student - patients relatives, student - doctor - mentor, student - junior medical staff.

The following forms of discussion, such as the Tree of Solutions, Talk Show, and the Round Table, which were aimed at developing the skills of public speaking as a possible form of professional communication had shown its effectiveness. The most interesting were the following discussions: "How to reach psychological contact with a patient?", "Why do we need to build relationships and build a collaborative communicative space at the patient-patient level?"

During the seminars, the students' activities were intensified through dialogue interaction (polylogue), which allowed the student's subject experience to be used, and, consequently, to make the investigated material personally significant.

It was expedient to simulate problem situations. The following methods of simulation of the problem situation were singled out: the method of analogy (based on life experience, or actualization of previously obtained knowledge to solve new problems), inductive, analytical and synthetic way (students independently study phenomena and facts and make the necessary scientific conclusions), the nomination of problem question (it is expedient to solve the problem and master the new knowledge). Among the situations that were discussed during the classes, we can distinguish the following: "At the reception of the dentist," "Visit a dentist in the house for the elderly," "Conflict of the dentist and patient", "Explain, please, the doctor, how do you see the process of treatment" and others.

Students were invited to participate in role-playing and business games with division into teams with different

functions (two teams conduct a discussion where the first team submits a certain opinion to the discussion, and the second attempts to refute it). Interesting were the game-polls: "Pass the next", "Ask a friend", "You - me, I - you", "Competition teams". Its value is that they seek to ascertain the level of the learned lecture material by the teacher (students themselves raise questions and define the defendant, which requires more thorough preparation for classes; the control mechanisms of consciousness, which constrain the flow of ideas under the pressure of the usual, stereotyped forms of adoption, disappear decisions, decreases fear of failure, fear to seem ridiculous, uncertainty in their knowledge and skills).

Games, as a model of interpersonal communication, provided the development of skills for professional interaction, and also shaped the ability of students to play the role of a doctor (dentist-therapist, dentist-orthopaedist, and dentist-surgeon), a patient, and a relative of a patient, to see oneself from the position of the subject of interaction. During exercises, trainings ("Interaction of a doctor and a patient", "Children's stomatology reception", "Long-term contact with patient's parents") were widely used.

Important role was assigned to trainings. The trainings selected for the study included training exercises that future dentist performed according to the model, instruction, tasks, without a sample, and detailed instructions from the teacher: "Questioning" (aimed at developing skills to ask questions in the course of communication between the dentist), "Infinite Chain" (involves the wording an alternative position on a discussion problem, forecasting the consequences of individual professional positions and decisions for individuals), "Arguments "for" and "against" (the goal is to develop the skills of the counter-argumentation), "Organization of the argument" (aimed at understanding the process of uniting opinions on the creation of a logical, understandable and convincing argument), "Explanation on the cards" (elaboration of the skills of the selection of arguments), "Adjustment of Emotional Stress" (aimed at developing the skills of verbal regulation of emotional stress during professional communication).

The components of future dentist's readiness for professional interaction are: motivational (the need to increase the skill of professional interaction, the presence of the motivation of achievement the desire for success, self-improvement), cognitive (completeness and strength of knowledge of the professional interaction of the dentist), operational (level of mastery of a set of skills of professional interaction: communicative-speech, interactive, moral-ethical, attitude to the modelling of professional interactions), personal (the degree of formation of empathy, reflection, emotional intelligence, tolerance). The effectiveness of the implementation of the special course reflects the dynamics of levels of formation of components of readiness of students to professional interaction (Table I).

Comparison of data on the level of formation of components of readiness for professional interaction of students of control and experimental groups suggests significant positive changes at all levels.

Table I. Changes in the indicators of levels of formation of readiness components for professional interaction among students of the control and experimental groups

The level of formation	A group of students			
	CG (144 people)		EG (148 people)	
	Experiment Stage			
	Constitutive	Control	Constitutive	Control
Motivational component				
High	20,8	22,3	21,6	38,9
Sufficient	38,2	41,7	39,9	46,9
Low	41,0	36,0	38,5	15,5
Cognitive component				
High	13,9	17,4	12,8	43,2
Sufficient	47,9	40,9	54,7	41,9
Low	38,2	41,7	32,5	14,9
Operational component				
High	18,1	19,4	20,2	41,7
Sufficient	41,7	41,7	39,9	48,0
Low	40,2	38,9	39,9	10,3
Personal component				
High	17,4	18,8	18,1	39,1
Sufficient	41,7	45,8	41,9	47,1
Low	40,9	35,4	40,0	13,8

Analysing the levels of formation of the motivational component of future dentist's readiness for professional interaction, it should be noted that during two years in the control group there were some changes. However, the dynamics were insignificant. The number of students with a high level increased by 1.5%. Some changes occurred in students who had a low level of motivation component formation (from 41.0% to 36.0%). The results obtained regarding the presence of minor changes in the control group indicate that there is no deliberate work on the formation of future dentist's readiness for professional interaction. As for the experimental group, the data of the table show that after studying the special course in the level of formation of the motivational component there were significant positive changes. The indicators were: for the high level - (+ 17.3%), for the low level - (- 23.0%).

Regarding the dynamics of levels of formation of the cognitive component of the readiness of future dentists to professional interaction, the findings suggest a rapid positive change. After the research in the experimental group, the number of students who we attributed to a high level (from 12.8 to 43.2%) significantly increased. Growth was + 30.4. Qualitative analysis of the results showed that future dentists are free to have profound and effective knowledge about the essence, peculiarities of the professional interaction of dentists. They have stable perspectives on the peculiarities of the interaction between the dentist and the client (assistant, colleague, and leader), the barriers of interaction, types and forms of behaviour of the dentist in the process of interaction with different people.

Significantly, the number of faithful full answers grows, as evidenced by the effectiveness of the developed special course, the nature of the established methods of training, which ensure the formation of students' willingness to engage in professional interaction.

The number of students with a low level (from 32.5 to 14.9%) significantly decreased. Growth was (-17.6). Regarding the control group, we have found some changes, but insignificant: high (from 13.9 to 17.4%), sufficient (from 47.9 to 40.9%), low (from 38.2 to 41.7 %) Growth accordingly was (+3.5; -7; +3.5). Changing motives led to the launch of internal mechanisms of self-development, self-realization and self-improvement of the individual in the types of professional interaction, awareness of the need for personal restructuring as future dentists.

With regard to the dynamics of levels of the formation of the operational component of the readiness of future dentists to professional interaction, we can state the following. In the process of diagnosis it was found that if in the control group the number of students with a high level is 19.4% (compared with 18.1%), then in the experimental one - 41.7% (compared with 20.2%). The increase was accordingly (+1.3 and +21.5). This is associated with the inclusion of interactive learning methods in the learning process, which required future dentists to justify their own views on the problem and ways to solve it; game teaching methods, which, based on professionally directed situations, provided a manifestation of the personal position of future dentists during the interaction in the systems "student - student", "teacher - student".

A low level was found in 38.9% of control group students. As to the experimental one, significant positive changes were found in each of the studied levels, namely: high level – positive changes +21.5; sufficient – changes +8,1; low – (-29.6). By comparing the results obtained, we note that after studying the special course in the experimental group there is a noticeable significant increase in the number of students who are attributed to a high level: the percentage of students in the experimental group with a high level has changed from 18.1 to 39.1. It is significantly reduced the number of future dentists who showed a low level (from 40.0 to 13.8%). In the control group, changes occurred, but insignificant: the high level – from 17.4 to 18.8%, sufficient – from 41.7 to 45.8% and the low level – from 40.9 to 35.4%.

CONCLUSIONS

The article presents a solution to the problem of preparing future dentists for professional interaction. The educational discipline “Professional interaction of dentists” is developed and aimed at realization of the tasks: acquisition of theoretical knowledge of the problems of communication and interaction by future dentists; increasing the need for communication, implementing a variety of interactions; the formation of future dentists readiness for the implementation of professional interaction, positive communicative attitude to team interaction and receiving satisfaction from it. The program results of the study of the indicated discipline are presented, content of its modules is disclosed. Interactive teaching methods used during lectures and seminars are described.

The components of future dentist’s readiness for professional interaction are developed: motivational, cognitive, operational, personal. The results of the pedagogical experiment, which proved the effectiveness of the implementation of the special course, are presented. After studying the special course in the experimental group, a significant increase in the number of students who were assigned to a high level, in addition, significantly reduced the number of future dentists who showed a low level.

The development of a methodology for preparing future dentists to engage in professional interaction will be the subject of further scientific research.

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