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CONCEPT OF SIMULATION TRAINING AT BASE OF THE PHANTOM CENTERS OF DEVELOPMENT OF PRACTICAL SKILLS OF DENTAL FACULTIES OF HIGHER EDUCATION INSTITUTIONS

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Abstract:

Now about educational simulation training for students in medical schools it is told in the order of the Ministry of Health and Social Development of the Russian Federation of 15.01.07 No. 30 "About the statement of an order of admission of students of the highest and average medical educational institutions to participation in delivery of health care to citizens" where models (phantoms) are mentioned, but volumes and rules of their use are not regulated in any way therefore creation of a system of simulation (imitating) training in health care is necessary. Not only departments of higher education institutions, but also the intercathedral phantom centers at faculties which experience is already available in Volgograd, Kuban, Saratov and other medical universities can be the structural divisions which are directly participating in process of preparation of practical skills. The organization of training in the simulation the centers, in addition to traditional occupations at dental departments, in total with a work practice on dental specialties, is an effective method of improvement of quality of development of practical skills at students.

Key words: *dentistry, simulation training, phantom course.*

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INTRODUCTION:

Today improvement of professional knowledge and skills of the doctor in a stomatology is carried out throughout all training at the university at dental departments from first on the fifth year, then in the course of additional professional education, by means of implementation of programs of professional development and retraining. According to the Federal law of December 29, 2012 No. 273 "About education in the Russian Federation", the system of continuous medical education is provided during all life by continuous increase in professional level and expansion of professional competences [1].

The latest dental technologies and methods treatment demand from dentists of the highest manual skills which, in a type of the objective reasons (a commercial basis of the dental help and the changed legislation), cannot be mastered only at clinical dental departments at reception of patients. In the Federal law of the Russian Federation of November 21, 2011 No. 323-fz "About bases of protection of public health in the Russian Federation" it is said that practical training of students is provided by their participation in implementation of medical activity under control of employees of the educational organizations. The patient has to be informed and has the right to refuse similar participation. It becomes more difficult to receive the consent of the patient to participation in rendering medical care of students and trainees to it. Introduction of an additional, but obligatory grade level and certification in the conditions of simulation training of professional activity for each student and the trainee radically changes this situation [2].

Now about educational simulation training for students in medical schools it is told in the order of the Ministry of Health and Social Development of the Russian Federation of 15.01.07 No. 30 "About the statement of an order of admission of students of the highest and average medical educational institutions to participation in delivery of health care to citizens" where models (phantoms) are mentioned, but volumes and rules of their use are not regulated in any way therefore creation of a system of simulation (imitating) training in health care is necessary. Not only departments of higher education institutions, but also the intercathedral phantom centers at faculties which experience is already available in Volgograd, Kuban, Saratov and other medical universities can be the structural divisions which are directly participating in process of preparation of practical skills. The organization of training in the simulation the centers, in addition to traditional occupations at dental departments, in total with a work practice on dental specialties, is an effective method of improvement of quality of development of practical skills at students [3-4].

The purpose of simulation training at base of the centers is increase in level of development of practical skills of students in a stomatology.

MATERIALS AND METHODS:

This work was done at Sechenov University with supported by the "Russian Academic Excellence Project 5-100".

Main objectives of the phantom centers:

1. Implementation of educational programs of dodiplomny and post-degree education for all sections of discipline stomatology;
2. Development of educational and methodical complexes on training in concrete practical skills within educational standards;
3. Implementation of material support of educational process;
4. Control of compliance of the received practical skills;
5. Interaction with the staff of profile departments, attraction them for work in the center and also during creation of educational and methodical complexes.

Deepening of separate narrow-purpose specializations, especially on post-degree training and also expansion of quantity profile on the basis of the center will be the main directions of development. Versatility the simulation of the centers allows to reduce costs of purchase and the maintenance of the expensive equipment and also the need for a huge number of visits as in the same phantom classes according to the schedule different sections of stomatology are taught.

Stages of a system of development of practical skills:

1. Development of practical skills on phantoms and native drugs at dodiplomny training (basic level): preparation and sealing of carious cavities on phantoms, restoration of teeth, carrying out necessary the endodonticheskikh of actions, performance of all clinical fabrication stages of various orthopedic designs, an exodontia, zubosokhranyayushchy and parodontalny operations on native drugs, assistance at medical emergencies on dental reception on phantoms, work with the assistant in 4 hands.
2. Post-degree education (specialized skills): restoration of all groups of teeth modern photopolymerization materials, endodontichesky treatment of any complexity, prosthetics by any kinds

of orthopedic designs, including bezmetalovy ceramics, implantation of teeth with further prosthetics [5-7].

The program of training in practical skills consists of theoretical (a lecture course) and practical preparation and is a part of educational programs for sections of discipline. In turn practical preparation is divided into work with the phantom equipment and with patients (on a practical training of dental departments and also on a work practice). Training in the phantom centers is provided during nine semester (the period of teaching discipline "Stomatology" at various departments). Besides, the program of post-degree training included simulation cycles for working off, fixing and estimates of practical skills at students [8-9].

Work of the student with patients both at departments on a practical training, and on a work practice is allowed only after working off of concrete practical skills in the phantom center with the corresponding mark in the log-book of competences [10].

RESULTS AND DISCUSSION:

There is an opinion that the simulation of technologies creation of multifunctional educational complexes at the universities has to become a result of development of the centers. However the simulation equipment of dental discipline very strongly differs from any the general surgical, and the phantom center has to interact with dental departments closely. In this regard existence of dental centers of development of practical skills in which all competences of discipline "Stomatology" will be fulfilled is expedient. In turn the dental centers of development of practical skills can include: multimedia audiences, with a possibility of a live broadcast of difficult dental interventions; simulation classes for working off of skills of different complexity; classes for work with native drugs; advisory council with participation of specialists, professors and associate professors of dental departments for analysis of difficult clinical situations; the center of role and situational interaktiv which is turning on the equipment for assessment of abilities without influence of a human factor; the center of forming of command skills (working off of ability of work in collective, relationship of the doctor with other medical personnel, in particular with administrators, nurses and dental technicians, with possible involvement of students of medical colleges).

The advantage of the intercathedral centers is the possibility of minimization of the duplicated equipment when performing practical skills from various sections of discipline of "stomatology". Thus, at division of phantom classes it is necessary to focus on appointment: dodiplomny education, or post-degree education. The number of the equipment will vary and to depend on number of students and financing of the centers. However at equipment selection the emphasis needs to be placed not only on opportunities the simulator, but also on the cost of expendables. Experience of many universities shows that expensive simulation equipment with feedback and opportunities of electronic assessment of quality of performance of practical skills has very expensive expendables. So, the cost of one set of teeth of the simulator with feedback reaches 25% of the average annual cost of training of the student of dental faculty at a compensation basis. Also the validity of use in somatology of virtual simulators raises doubts, only difficult surgeries of maxillofacial area which it is impossible can make an exception or it is extremely difficult to simulate on the ordinary phantom. Availability to the student, the low price of expendables has to be the main characteristic of the phantom equipment. Only in this case any manipulation can be fulfilled in that volume in which it is necessary for full development.

As shows experience, the simulation centers have to be autonomous and have the personnel potential. Inclusion of the center in the structure of any department can result in narrow-mindedness of its use and insufficient funding, at the same time, if to speak about teachers, then in the staff list of higher education institutions there is no position the teacher of the center, there is only PPS of departments, as a result in the centers teachers of departments should work that does not allow to be completely independent division. In teaching staff there have to be staff of the center and under them it is necessary to allocate rates. Besides, in the staff list have to be: head of the center, organizational and methodical department, technical group, household service staff.

CONCLUSIONS:

Perhaps, in new educational standards there will be a place for teachers the simulation of the centers, it can be the allocated teachers conducting a practical training with use of phantoms, or heads educational the practician, carried out in the phantom centers. Only the correct organization and financing of this direction, taking into account the experience accumulated by leaders domestic and foreign medical Higher education institutions will allow to receive the most optimum result from use of such expensive direction of preparation as simulation training.

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