

## THE ASSESS OF DENTAL STUDENTS' KNOWLEDGE AND SKILLS IN MANAGEMENT OF MEDICAL EMERGENCIES IN DENTAL OFFICE

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### ABSTRACT

Medical emergencies can occur in the dental office. The dental practitioner must be able to react immediately and adequately.

**The aim** of the study was to investigate the knowledge and skills of dental students to react in medical emergency.

**Material and methods:** A total of 136 dental students were inquired about the clinical symptoms and management in emergency situations.

**Results:** With regard to theoretical preparation in emergency situations 72.8% of the students assess the dental education as excellent, 11.8% of the students assess their knowledge as satisfactory and 15.4% of the dental students find difficulties to differentiate the emergency situations. No one of the students is feeling able to manage in those situations.

**Conclusions:** An urgent regulation to update the dental education programs is necessary.

**Key words:** dental education, medical emergencies, dental ability

There are too many causes in the dental office which may provoke medical emergencies. The frequent administration of local anesthetics and other drugs, the usage of dental materials with high sensibilizing potential, the dental care of medical compromised patients and adult patients, the fear of unknown surgical operations in many patients are frequent causes of emergency situations (1, 2, 3, 4).

Every dental practitioner must be able to diagnose and treat common emergent problems (for example syncope, hyperventilation syndrome) and less common or rare potentially life threatening emergencies (for example anaphylactic reaction). The basic principles of emergency situations and a consideration of the management must be objects of the dental education.

### MATERIALS AND METHODS

A total of 136 dental students in the fourth- and fifth-year of education in Faculty of Dental Medicine, Medical University, Plovdiv take part in the study. The aim of questions was to evaluate the students' knowledge and skills in managing specific medical emergency, to obtain information about training in cardiopulmonary resuscitation (CPR), and to give the opportunity to explain why the students thought themselves incapable of performing certain procedures for managing medical emergencies.

### RESULTS

Of all the dental students, 70% (n=95) were in the fourth-year of education and 30% were (n=41) in the fifth-year.

With regard to knowledge of basic clinical signs of some medical emergencies and rapid recognition of the emergent problem 72.8% (n=99) of the students assess the dental education as excellent. 11.8% (n=16) of the students assess their knowledge about medical emergency as satisfactory. 15.4% (n=21) of the dental students find difficulties to differentiate medical urgent situations and need of more knowledge about clinical signs and management in these situations.

With regard to CPR all the students have some knowledge but only 0.02% (n=3) are able to give CPR. 11.8% (n=16) of the students had undergone some type of training, while 86% (n=117) had never trained in this procedure. Among those students who had some training, all received training during their course for guard-swimming.

The self-assessed capability of the student to initiate emergency treatment of the most frequent medical emergencies illustrated that 89% (n=121) of the students did not judge themselves capable of rescuing victims of anaphylactic shock and cerebrovascular accident. The reason is that they did not judge themselves competent to perform CPR and apply a drug intravenously. 11% (n=15) of the students have some experience (from the medical college) but they are feeling also an incertitude to manage in such situations.

## DISCUSSION

This study investigated the preparedness and the training experience in management of medical emergencies of dental students.

73% of the students are self-confident that they will recognize the emergent problem quickly and they are informed about the management in this situation. The theoretical preparedness is very good but a severe lack of practical skills is observed. This is a severe reason for lack of effective management in medical emergencies.

## CONCLUSIONS:

The dental education in Faculty of Dental Medicine, Plovdiv is satisfactory with regard to propose sufficient knowledge about urgent situations in dental practice, but a lack of skills for effective management in those situations is reported by all dental students. The results of our study have demonstrated that the Bulgarian dental students are not prepared to manage medical emergencies. It requires urgent regulation to update the dental education programs and to ensure a satisfactory annually qualification courses.

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