

Assessment of Knowledge and Attitude Pertaining to Basic Life Support and Medical Emergencies among Final Year Undergraduate Students and House Surgeons in a Dental College: A Descriptive Cross-sectional Study

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Abstract

Background: Acknowledging the fact that medical emergencies can occur at any point and to be prepared to face the same is the key to a successful dental practice.

Aim: To assess the knowledge and attitude pertaining to Basic Life Support and Medical Emergencies among Final Year Undergraduate Students and House Surgeons in a Dental College.

Methodology: A descriptive cross-sectional study was conducted using questionnaire. The questionnaire had two parts: One part assessed the knowledge levels and the other assessed the attitude of the students. A total of 140 students consented to participate in the study. The data obtained was subjected to descriptive statistical analysis.

Results: Knowledge levels results showed that 52.1% of the study participants were above average (Those who scored more than 50%). Syncope was the most commonly reported medical emergency in dental clinical setup. More than 90% of the study participants had a positive attitude towards Basic Life Support and Medical Emergency Training.

Conclusion: There is a much lacuna in the current educational curriculum as evident from the results of the presently conducted study.

Keywords: Basic Life Support; Cardiopulmonary Resuscitation; Dentistry; House Surgeons; Medical Emergencies

Introduction

Basic Life Support (BLS) forms the very basic foundation of saving a life in an medical emergency situation. Immediate recognition of medical emergency, cardiopulmonary resuscitation (CPR) and rapid defibrillation (when needed) forms the first three links of Basic Life Support [1].

Basic Life Support (BLS) comprises of maintaining airway, support breathing and the regulation of circulation [2]. In dental clinical practice medical emergencies do occur. A dental surgeon has to be in a position to tackle any emergency that arises in a dental setting [3].

The present study was conducted with the aim to assess the knowledge and attitude pertaining to Basic Life Support and Medical Emergencies among Final Year Undergraduate Students and House Surgeons in a Dental College, Tamil Nadu, India.

Materials and Methods

A Descriptive Cross-sectional study was conducted using a questionnaire to assess the knowledge and attitude pertaining to Basic Life Support and Medical Emergencies among Final Year Undergraduate Students and House Surgeons. The protocol of the study was approved by the Institutional Review Board and Ethics Committee. The study protocol satisfied all the norms of Helsinki Declaration. The permission to conduct the study was obtained from the Head of the Institution.

The study participants comprised of Final Year Undergraduate Students and House Surgeons of the dental college who volunteered for the study. Inclusion and exclusion to the study was based only on the consent for the study. To assess the knowledge and attitude a standard questionnaire was employed [4]. The questionnaire had two parts: First part assessed the attitude of students and the second part measured the knowledge scores. The knowledge levels were classified the study participants as ones who were above average (Those who scored more than 50%) and below average (Those who scored 50% and below).

The data obtained was subjected to descriptive statistical analysis (Mean, Standard Deviation and Frequency Percentage).

Results

Out of the total 176 students of the college (Final Year Undergraduate Students and House Surgeons), only 140 students volunteered and consented for the study. The mean age of the study participants was 21.67 ± 1.23. Among the 140, 53 (37.9%) were males and 87 (62.1%) were females. The assessment of knowledge levels showed that a total of 52.1% of the study participants were above average (Those who scored more than 50%) and a total of 47.9% were below average (Those who scored 50% and less). Self-evaluation results among the study participants showed that a total of 49.3% of the study participants recorded themselves as average. A total of 86.4% of the study participants reported that syncope was the most commonly seen medical emergency. Lack of medical emergency was the most common reported reason for lack of knowledge. Majority (89.3%) of the study participants have expressed that they need more medical emergency training as 90% of them never attended a training for the same and 95% feels Basic Life Support Training should be a part of the curriculum (Table 1).

Question	Response	Frequency
Do you think all the interns should know about Basic Life Support (BLS)?	Yes	97.9%
	No	2.1%
Do you think BLS training should be part of medical curriculum?	Yes	95%
	No	5%
Have you ever faced any life threatening situation?	Yes	12.1%
	No	87.9%
Have you ever done BLS (CPR) on a patient?	Yes	7.9%
	No	92.1%
Do you know the emergency drugs used?	Yes	65.7%
	No	34.3%
Do you know exact dosage and route of administration of drugs?	Yes	22.9%
	No	77.1%
Have you ever attended a workshop on Basic Life Support?	Yes	10%
	No	90%
Do you feel you require training in managing medical emergencies?	Yes	89.3%
	No	10.7%
Reason for lack of knowledge about Basic Life Support (BLS)	Busy Curriculum	15.7%
	Lack of Interest	10.7%
	No Professional Training Available	67.9%
	Don't Consider it Important	5.7%
Commonly Encountered Medical Emergency	Syncope	86.4%
	Allergic Reaction	7.1%
	Seizures	5.7%
	Anaphylactic Reaction	0.8%
Self-rating of knowledge on Basic Life Support (BLS)	Poor	15.7%
	Below Average	32.1%
	Average	49.3%
	Good	2.9%

Table 1: Dental house surgeons responses to questions for assessment of knowledge and attitude towards basic life support and medical emergencies.

Discussion

Medical emergencies can and do occur in a dental clinic. The procedures carried out in a dental clinical setup do jeopardize the airway or some kind of medically compromised situation can happen from the medications used. The preparedness of a dental surgeon to tackle any such situations is the very first step to a successful clinical practice.

Majority of the study participants were females, a similar finding from studies conducted by others [4,5]. As reported by Narayan DPR, *et al.* and Roshana S., *et al.* the study participants from the presently conducted study too reported a positive attitude towards Basic Life Support Training as 90% of them urged the need of the same [6,7].

Among the study participants in the present study only 49.3% of them rated themselves as having average knowledge scores. The knowledge scores when assessed showed that 52.1% of the study participants were above average. A similar level of knowledge scores have been reported by many researchers over the years [4,8-11].

The existing undergraduate curriculum has teaching of medical emergencies only in the subjects of General Medicine and Maxillofacial Surgery. But there is formal training for the same. This shows a huge gap in present teaching curriculum. Majority (95%) of the study have expressed the need of having expert training in Basic Life Support and Medical Emergency to be included in the undergraduate curriculum.

The future generations of dental surgeons should be in a position to respond and tackle any medical emergencies that arises. The preparedness to face emergencies is the key to success. Though several studies have been reported in the literature about the lack of knowledge related to Basic Life Support Training and Medical Emergency Management, still the story remains the same. It is really a need of the hour to bridge the gap of lack of knowledge and training.

Conclusion

The percentage of lack of knowledge with respect to Basic Life Support Training and Medical Emergency Management is an alarming one. The positive attitude of study participants reported in the presently conducted study is clear indication to shift more focus in the training of dental students in the field of Basic Life Support and Medical Emergency Management. The future generation of budding dental surgeons should be able to tackle any emergency situations encountered in a dental clinical setup.

Conflict of Interest

None.

Source of Funding

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