

Assessment Of Knowledge And Awareness Of Adult Basic Life Support Among Post Graduate Students Of Rama Dental College, Kanpur City, India

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Abstracts: **Background:** Accidents and cardiac arrest are mostly encountered life threatening emergencies, which can sometimes be prevented by adequate knowledge and proper practice regarding basic life support (BLS) and resuscitation. Therefore, the study aims at evaluating the knowledge and awareness of adult basic life support among postgraduate students of Rama Dental College, Kanpur. **Methodology:** A cross-sectional descriptive study was conducted amongst the postgraduate students regarding BLS. Permission was obtained from the Institutional heads and the review board. A self-structured questionnaire in English which was administered was validated via pilot study. The questionnaire comprised of 13 close ended questions including demographic details as well as questions regarding knowledge and awareness on Basic Life Support. A single calibrated examiner administered the questionnaire. Statistical analysis was done by calculating percentage and frequency distribution. **Results:** 100 postgraduate students were chosen as study subjects. Out of those, 95 students submitted the duly filled questionnaires. Therefore, it was seen that only 37%-38% students had knowledge regarding the meaning of BLS, while only 11% postgraduate students were aware of the latest modification of the BLS. 30%-37% students gave the correct response for the question 'first response when you see a person unresponsive on road'. 56% students had knowledge regarding the location for compression of chest. **Conclusion:** In the current study, we found that most of the postgraduate students did not have adequate knowledge regarding BLS. [Kumar J NJIRM 2016; 7(3): 83 - 85]

Key Words: Knowledge, Awareness, Basic life support, Cardio pulmonary resuscitation, Automated external defibrillation.

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Introduction: Accidents and cardiac arrest are mostly encountered life threatening emergencies which can sometimes be prevented by adequate knowledge and proper practice regarding basic life support (BLS) and resuscitation.^{1, 2} The art of restoring life is called resuscitation. It is very essential for doctors, healthcare professionals to have proper knowledge about basic life support in order to save the life of the person and to improve the quality of health of the community.³

BLS is referred to as maintenance of airway, breathing and circulation without the use of any equipment. Emergencies can occur anywhere, anytime and in any individual. Such life threatening emergencies can also occur at the dental office due to higher levels of stress that is generally encountered. Management of an emergency must be the foremost goal and utmost responsibility for a dentist.^{4,5}

It is very important to know the current American Heart Association guidelines 2010 regarding Basic Life Support.^{6,7} The guidelines include:

a) The primary sequence has been altered from ABC (Airway, Breathing & Circulation) to CAB (Chest

compressions, Airway & Breathing), except for newborns.

- b) 'Look', Listen and 'Feel' are not recommended anymore
- c) The depth of compressions for adults must be at least 2 inches instead of up to 2 inches
- d) The rate of compressions must be 100/min

Therefore, basic life support is an essential tool, which can save many lives and so the training for the same must be implemented in the curriculum.⁷ Based on the previous literature findings^{1, 2,3, 4} it has been revealed that there is lack of knowledge and awareness regarding BLS. In addition, there are no studies conducted in Kanpur city regarding the knowledge and awareness about the basic life support among doctors and healthcare professionals. Hence, the study was conducted with the aim of evaluating the knowledge and awareness of adult basic life support among postgraduate students in our dental college in Kanpur city.

Material and Methods: **Study design and Sample selection:** A cross-sectional descriptive study was conducted amongst the postgraduate students of

Rama Dental College, Kanpur, India to assess the knowledge and awareness of basic life support. A list of all the postgraduate students with their contact details was obtained from the admissions office of Rama Dental College, Kanpur. Prior appointment was taken through email ids and a self-structured questionnaire was administered to 100 postgraduate students. The sample size estimated was 100. Out of 100 students, 95 students submitted the duly filled questionnaires and hence the response rate was 95%.

Inclusion criteria: All the postgraduate students (including 1st, 2nd & 3rd year) from all the branches of dentistry.

Exclusion criteria

- The students who did not responded
- The students who were not willing to participate in the study

Ethical approval and Informed consent: The study protocol was reviewed and approved by the institutional review board of Rama Dental College Hospital and Research Centre, Kanpur, India. The main purpose regarding the study was explained to all the participants and informed consent was obtained.

Pre-testing of questionnaire and analysis of data: Pilot study was done to determine the feasibility of the study. Questionnaires were distributed to the study participants randomly. Depending upon the responses obtained, the analysis of the data was done and Cronbach's coefficient was calculated to be as 0.78.

A self-structured questionnaire (English) which had been administered was validated via pilot study, which included 13 close-ended questions. The questionnaire comprised of demographic details as well as knowledge and awareness related questions. A single calibrated examiner administered the questionnaire.

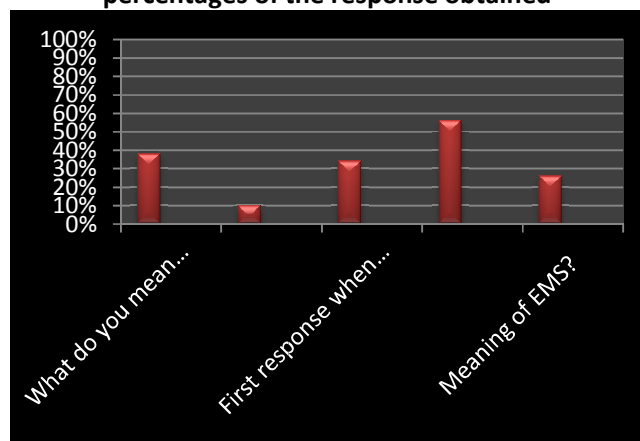
Study Duration: The study period was from September 2015 to December 2015 (4 months).

Statistical analysis:

After the collection of data, it was compiled and then percentage and frequency distribution was calculated.

Results:

Graph1: The above graph shows the various percentages of the response obtained



Discussion: In the present study, it was found that the knowledge and awareness of the postgraduates was poor regarding the basic life support. Even, knowledge regarding the question on the latest changes in the BLS was found to very low. There are few studies, which are conducted in order to evaluate the knowledge of doctors, healthcare professionals regarding BLS but the results show that there is inadequate knowledge amongst the individuals.^{7, 8, 9}

There was a survey which was undertaken by Singh et al. and it was observed that only 56% dentists knew the correct procedure for performing CPR while only 12% dentists had undergone any practical training for BLS.² Another study was conducted amongst Iranian dentist, where again the results reveal that only 37% of the dentist had the correct knowledge and concept regarding BLS and CPR.¹⁰

A study was conducted in Saudi Arabia amongst dental students and staff where it was again found that the knowledge of the students and the staff was inadequate.⁸ Also the response rates for the question on the location of chest compressions were found to be around 37% in the present study.

In coastal South India, a cross-sectional study was conducted amongst undergraduate medical students regarding Basic Life Support and Cardio pulmonary resuscitation. It was found that 50.2% students were not confident in performing CPR and only 30.6% students had correct knowledge regarding BLS.⁹ So, as compared with the present study, the knowledge was found to be poor and inadequate.

Studies have shown that around 18.9% people actually undergo training regarding BLS and CPR.^{11, 12, 13} Hence,

the present study on BLS reveals that the skills regarding it are highly lacking in postgraduate students. It is an immediate need to include BLS and CPR in the teaching curriculum in order to prevent life-threatening emergencies/conditions.¹⁴

An interesting thing which was been found in the study was that the students who belonged to the clinical branches had better scores than those students who were from non- clinical branches and this was a major strength of the study as well. One of the limitations regarding the study conducted was that the practical skills regarding Basic Life Support were not been assessed and only single Dental college students were taken as the study subjects.

Furthermore, based our findings of the study, the author suggests to conduct workshops and programmes on Basic Life Support especially for doctors and healthcare professionals to prevent deaths and restore lives of the individuals.

Conclusion: The results obtained from the study revealed that the knowledge and awareness of the postgraduate students was found to be quiet low and poor. Hence, the knowledge and awareness needs to be improved in order to prevent the life threatening emergencies especially at the dental practice. Hence, dental colleges must adopt BLS and CPR in their academic curriculum.

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