IJMDAS

International Journal of Medical, Dental, and Allied Health Sciences

Original Article

Publication History:
Received 21/5/2020
Accepted 17/6/2020
Published 27/8/2020

DOI:
10.5281/zenodo.4013100

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Cite this article as:
Essa M, Ghanni MU, Asghar U. Understanding of basic life support among medical students. Int. J. Med. Dent. Allied Health Sci. 2020;2(8). 248-54

UNDERSTANDING OF BASIC LIFE SUPPORT AMONG MEDICAL STUDENTS

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ABSTRACT:

According to studies the knowledge of basic life support was extremely poor in medical, dental, and nursing students, doctors, and nurses. In another study from South Africa, poor knowledge, and skills of medical practitioners in basic resuscitation were reported. The survey study was conducted among different medical and dental students. A predefined questionnaire was served. A total of 90 medical and dental students participated in the study. All were from fourth and final year. There were 73 males and 17 females. The mean age was 22.34±1.45 years. Out of 90, 43 students had sound knowledge about basic life support, 28 had somewhat knowledge while the rest had no knowledge about this.

Keywords: Basic life support, BLS, life support

INTRODUCTION:

Life support refers to the treatments and techniques performed in an emergency to support life after the failure of one or more vital organs. Healthcare providers and emergency medical technicians are generally certified to perform basic and advanced life support procedures; however, basic life support is sometimes provided at the scene of an emergency by family members or bystanders before emergency services arrive. In the case of cardiac injuries, cardiopulmonary resuscitation is initiated by bystanders or family members 25% of the time. Basic life support techniques, such as performing CPR on a victim of cardiac arrest, can double or even triple that patient's chance of survival. Other types of basic life support include relief from choking (which can be done by using the Heimlich maneuver), staunching of bleeding by direct compression and elevation above the heart (and if necessary, pressure on arterial pressure points and the use of a manufactured or improvised tourniquet), first aid, and the use of an automated external defibrillator.

In 2005, the committee published International Consensus on Cardiopulmonary resuscitation (CPR) and Emergency Cardiovascular Care (ECC) Science with Treatment Recommendations. Since 2010, the committee has provided materials for regional resuscitation providers such as European Resuscitation Council and American Heart Association to write their own guidelines. Since 2015, ILCOR has used a new methodology called Consensus on Science with Treatment Recommendations (COSTR) to evaluate the quality of latest evidence available and to reach a conclusion on the best treatments available in resuscitation. Using the COSTR methodology, ILCOR also started to conduct yearly reviews and published updates on the latest evidence in resuscitation, changing it from the previous 5-yearly review on resuscitation. CPR provided in the field increases the time available for higher medical responders to arrive and provide ALS care. An important advance in providing BLS is the availability of the automated

external defibrillator or AED. This improves survival outcomes in cardiac arrest cases.

A study in India found the knowledge of BLS to be extremely poor in their study on medical, dental and nursing students, doctors and nurses. In another study from South Africa, poor knowledge and skills of medical practitioners in basic resuscitation were reported. In 2009 medical students from Karachi, Pakistan were evaluated and more than half of them were found to have no knowledge of BLS; it was concluded that prior training in BLS would improve the knowledge and its application. On the other hand, a study on junior doctors from UK found them to be not capable enough to perform effective resuscitation even when life support training was being provided. All these examples from different regions indicate a poor state of knowledge of BLS in health professionals and undergraduate students of related fields (1-4).

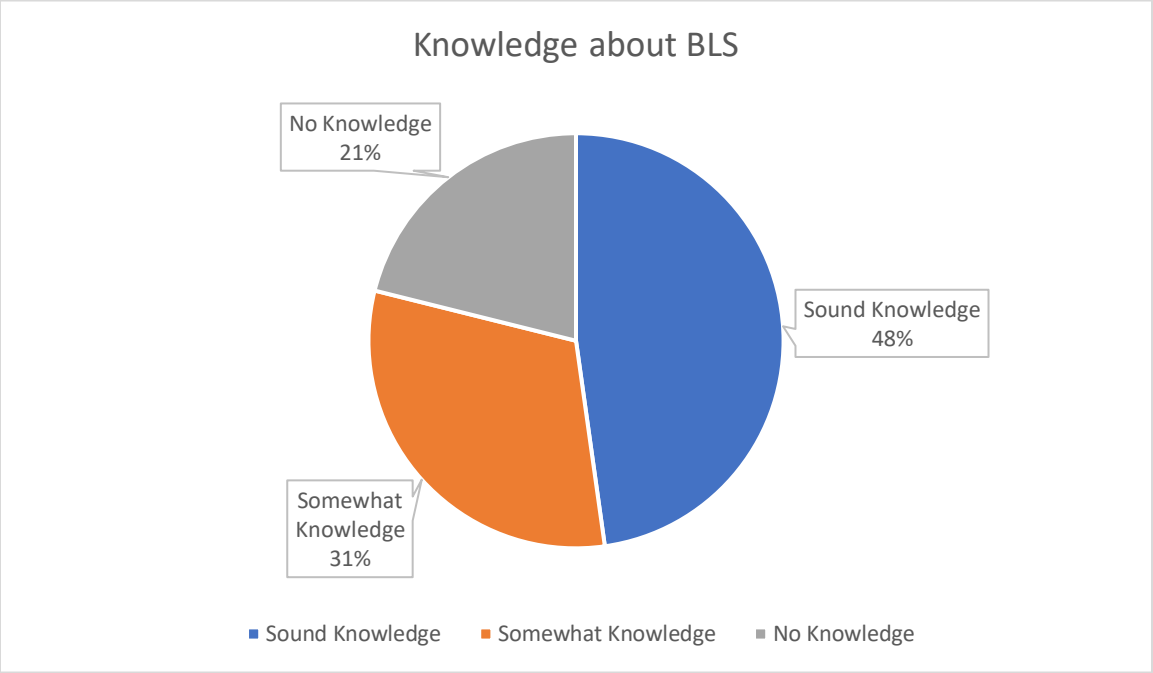
MATERIAL AND METHODS:

This survey study was conducted among different medical and dental students. A predefined questionnaire was served. They were asked basic questions about the basic life support i.e. what basic life support is, have they attended any workshop for this, did they assist someone in this procedure etc. All the data was analyzed with SPSS Ver. 23.0. Relevant statistical analysis was performed. The qualitative variables were presented as frequency and percentages. The quantitative variables were presented as mean and standard deviation.

RESULTS:

A total of 90 medical and dental students participated in the study. All were from fourth and final year. There were 73 males and 17 females. The mean age was 22.34±1.45 years. Out of 90, 43 students had sound knowledge about basic life

support, 28 had somewhat knowledge while the rest had no knowledge about this.



Out of 43 who had sound knowledge, 12 had assisted some senior in this procedure during their emergency duties and 5 had attended the workshop for this.

DISCUSSION:

Health care professionals encounter such emergency situations very often so they should have sufficient knowledge of BLS. Apart from doctors and nurses, dental practitioners as a part of health care professionals also encounter life-threatening medical emergencies. A study found that during the 12-month study period about two-thirds of dentists faced at least one emergency. Moreover, there are some reports showing that during dental treatment patients died due to cardiopulmonary arrest.

The purpose of basic life support (abbreviated BLS) is to save lives in a variety of different situations that require immediate attention. These situations can include, but are not limited to, cardiac arrest, stroke, drowning, choking, accidental injuries, violence, severe allergic reactions, burns, hypothermia, birth complications, Drug addiction, and alcohol intoxication. The most common emergency that requires BLS is cerebral hypoxia, a shortage of oxygen to the brain due to heart or respiratory failure. A victim of cerebral hypoxia may die within 8–10 minutes without basic life support procedures. BLS is the lowest level of emergency care, followed by advanced life support and critical care.

Basic life support (BLS) is a level of medical care which is used for victims of life-threatening illnesses or injuries until they can be given full medical care at a hospital. It can be provided by trained medical personnel, such as emergency medical technicians, and by qualified bystanders. The International Liaison Committee on Resuscitation (ILCOR) was formed in 1992 to coordinate the efforts of resuscitation worldwide. The ILCOR representatives come from various countries such as the United States, Canada, Australia, Europe, New Zealand, and from the Asian and African continents. In 2000, the committee published the first resuscitation guideline.

Cardiovascular diseases are the major public health concern worldwide. Sudden cardiac death (SCD) which is often the first manifestation of cardiovascular disease, is also the most common cause of death worldwide. Survival after cardiopulmonary arrest is usually low and depends on early intervention, quality of cardiopulmonary resuscitation (CPR) and time of initiation of defibrillation post cardiac arrest. Basic life support (BLS) is a key component of chain of survival. It decreases the chance of mortality. Invented in 1960, CPR is a simple but effective procedure that allows almost anyone to sustain life in the early critical minutes after cardiac and respiratory arrest. BLS includes both prompt

recognition, immediate support of ventilation and circulation in case of respiratory or cardiac arrest (5-8).

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