

Basic Life Support: A Study on the Assessment of Knowledge of BLS among Healthcare Professionals

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Received: August 2016

Accepted: August 2016

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ABSTRACT

Background: the knowledge of Basic Life Support plays a vital role in the ultimate upshot of heightened emergency conditions so the aim of the study is to assess the knowledge and stage of alertness of BLS among healthcare professionals and their stance towards it. **Methods:** A total of 500 people were managed the questionnaire, out of which 480 filled the proforma entirely. This study is to be carried out you reviewing the comeback to 20 chosen basic questions concerning Basic Life Support among medical professionals like doctors, nurse, students, medical, and dental professionals. After attaining the knowledgeable assent from each participant, each one was asked to fill up the supplied questionnaire in front of the examiner to keep away from any negligence while answering the questionnaire. **Results:** In terms of the steps of BLS, barely 19 (33.3%) of doctors and 95 (34.7%) of medical students knew that when a patient is indifferent even after shaking and shouting, they are supposed to activate EMS immediately before they start CPR. Only 9 (14.2%) of nursing staff and 12 (13.7%) of nursing students knew they had information about this. **Conclusion:** Consciousness and information about basic life support is obligatory among health care professionals as they meet such state of affairs on a daily basis, and will help them a long way in saving lives.

Keywords: Knowledge, BLS, CPR, Health care professionals.

INTRODUCTION

Recognition of indications of Sudden Cardiac Arrest (SCA), heart attack, Cardiovascular stroke, foreign body airway blockage and Automated External Defibrillator (AED) is incorporates by Basic Life Support (BLS).^[1]

Post cardiopulmonary arrest survival is typically squat and relies on early intervention, eminence of cardiopulmonary resuscitation (CPR) and time of commencement of defibrillation post cardiac arrest. Basic life support is a key constituent of chain of endurance. It diminishes the probability of mortality.^[2] In post cardiac and respiratory arrest, CPR is uncomplicated although efficient practice that bestows approximately everyone to endure life in the early critical minutes. In case of respiratory or cardiac arrest, BLS embraces both timely identification, instantaneous support of ventilation and circulation.^[2]

In the success of resuscitation, the knowledge of Basic Life Support and plays a vital role in the ultimate upshot of heightened emergency conditions.

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Awareness of Basic Life Support is an utter inevitability for professionals to face acute medical urgent situations. A trained BLS provider should have, can reduce the high mortality rate associated with cardiac arrest in patients with cardiovascular disease. Furthermore, cardio-respiratory arrest can also be observed in neonates and infants with slight dissimilarity in the BLS algorithm that healthcare contributors should be well acquainted with.^[3] Consequently, each person in the community, particularly the medical staff, should have enough familiarity and guidance in supplying Basic Life Support maneuvers.^[4]

Basic Life Support has been characteristically recommended preparing technique and interest for the courses is mounting all through the globe.^[5] In any case, Basic Life Support and restoration preparing are not habitually sophisticated in generating countries like India. Next, in Indian circumstances, professionals working with victims of private and public medical clinics will deal with the superior part of the emergencies.^[6] In the end, we stipulate that CPR/BLS ought to be a midpoint aptitude in overall medicinal services skilled programs. Cardiovascular contagion is a noteworthy common well-being apprehension around the earth. Sudden heart downfall, which is regularly the major exterior of cardiovascular ailment, is similarly the most extensively documented motive for death internationally.^[7]

There has been various studies regarding public awareness of CPR but there are fewer researches assessing the information among health care providers. Even fewer researches have incorporated assessment of the modernized strategy and jacketing the features of a medico's approach about CPR. Taking into the consideration the shortage of data in India, we carried out a research in National Institute of Medical Science & Research Jaipur Rajasthan with the principal aim of evaluating the stage of alertness of BLS among healthcare professionals and their stance towards it.

MATERIALS AND METHODS

A cross-sectional this was conducted in Department of Emergency Medicine National Institute of Medical Science & Research, Jaipur, Rajasthan from September 2014 to October 2015.

This study is to be carried out you reviewing the comeback to 20 chosen basic questions concerning Basic Life Support among medical professionals like doctors, nurse, students, medical, and dental professionals. A questionnaire with 20 questions concerning to the wakefulness and skills occupied in Basic Life Support, used to assess the level of receptiveness to BLS and its realistic understanding. After attaining the knowledgeable assent from each participant, each one was asked to fill up the supplied questionnaire in front of the examiner to keep away from any negligence while answering the questionnaire.

Questions comprising contractions of BLS, AED (automated external defibrillator) and EMS (emergency medical service), sequential steps in BLS, appraisal and revival techniques with regard to airway, breathing, passage in unresponsive sufferers of various age groups, techniques concerning to the elimination of foreign body obstruction, acknowledgment of premature symbol of stroke and acute coronary syndrome were there in questionnaire. The sequence concerning to the ways by which the existing information of BLS could be enhanced was also attained. A total of 500 people were managed the questionnaire, out of which 480 filled the proforma entirely.

The answer keys for the core questions on acquaintance of Basic Life Support were produced using Basic life support manual from American Heart Association. Incomplete response sheets (none in the present study) were excluded from data capturing and analysis.

The data was compiled and analysed using Microsoft (MS) Excel work sheet. For categorical data, the number and percentage were used in the data summarized. Data is presented in tables and graphs.

RESULTS

Out of the 480 who provided complete questionnaire, 57 were doctors, 63 Nursing staff, 273 were medical students, 87 were nursing students. A 52 (91.2)% of doctors knew the abbreviation of BLS whereas 202 (73.9)% of medical students knew the abbreviation of BLS. A 76 (87.3)% of nursing students and 46 (73.0)% of nursing staff knew the abbreviation of BLS. When asked for abbreviation of AED, 45 (78.9) of doctors, 31 (11.3)% medical students, 31 (11.3) of nursing staff and 15 (17.2)% of nursing students answered it correctly ie, Automated External Defibrillator.

Likewise when asked concerning to the accurate full form of EMS, 44 (77.1)% of doctors, 71.87% of nursing students, 61 (70.1)% of nursing staff and only 116 (42.4) of the medical students knew it well (Table 1). In the study conducted, 28 (28.0%) of doctors, 98 (35.8%) of medical students, 16 (25.3)% of nursing staff and 22 (25.2)% of nursing students reportedly knew that scene safety was the first step of basic life support.

In terms of the steps of BLS, barely 19 (33.3%) of doctors and 95 (34.7%) of medical students knew that when a patient is indifferent even after shaking and shouting, they are supposed to activate EMS immediately before they start CPR. Only 9 (14.2%) of nursing staff and 12 (13.7%) of nursing students knew they had information about this (Table 2). Table 3 displayed the sequence about correct site of chest compression in BLS and CPR and rescue breathing. Table 4 displays the information about rate of chest compression. Table 5 displays the in sequence information about choking and drowning and cardiovascular emergencies.

Table 1: Knowledge regarding abbreviations associated with basic life support.

Question	Percentage of correct answers from the respondents			
	Doctors (n=57)	Nursing staff (n=63)	Medical students (n=273)	Nursing students (n=87)
1. Who knew the abbreviation of BLS	52 (91.2)	46 (73.0)	202 (73.9)	76 (87.3)
2. Who knew the correct abbreviation of AED	45 (78.9)	13 (20.6)	31 (11.3)	15 (17.2)
3. Who knew the abbreviation of EMS	44 (77.1)	42 (66.6)	116 (42.4)	61 (70.1)

Table 2: Knowledge regarding basic steps of BLS

Question	Percentage of correct answers from the respondents			
	Doctors (n=57)	Nursing staff (n=63)	Medical students (n=273)	Nursing students (n=87)
1. knowledge about the 1st step of BLS	28 (28.0)	16 (25.3)	98 (35.8)	22 (25.2)
2. knowledge about the correct steps of BLS	19 (33.3)	9 (14.2)	95 (34.7)	12 (13.7)

Table 3: Information about correct location of chest compression in BLS and CPR and rescue breathing.

Question	Percentage of correct answers from the respondents			
	Doctors (n=57)	Nursing staff (n=63)	Medical students (n=273)	Nursing students (n=87)
1. knowledge about the correct location of chest compress in adults	22 (38.5)	14 (22.2)	133 (48.7)	18 (20.6)
2. knowledge about the correct location Of chest compression in neonates	17 (29.8)	17 (26.9)	68 (24.9)	24 (27.5)
3. Who knew that they should not stop CPR	42 (73.6)	14 (22.2)	59 (21.6)	15 (17.2)
4. knowledge about the correct information about rescue breathing in infants	21 (36.8)	14 (22.2)	62 (22.7)	15 (17.2)

Table 4: Information about rate of chest compression

Participants (knowledge about the correct rate of chest compression)	Frequency	Percentage (%)
Doctor (n=57)	27	47.3
Medical student (n=273)	93	34.0
nursing staff (n=63)	22	34.9
nursing students (n=87)	25	28.7

Table 5: Information about choking and drowning and cardiovascular emergencies

Question	Percentage of correct answers from the respondents			
	Doctors (n=57)	Nursing staff (n=63)	Medical students (n=273)	Nursing students (n=87)
1. knowledge about the correct initial step to be taken in case of choking	30 (52.6)	19 (30.1)	43 (15.7)	15 (17.2)
2. knowledge about the correct steps to be taken when an infant starts choking suddenly	42 (73.6)	16 (25.3)	119 (43.5)	16 (18.3)
3. knowledge about keeping in recovery position post drowning	16 (28.0)	6 (9.5)	13 (4.7)	7 (8.0)
4. knowledge about the symptoms of stroke and measures to be taken	47 (82.4)	23 (36.5)	92 (33.6)	20 (22.9)
5. knowledge about the symptoms of myocardial infarction	54 (94.7)	27 (42.8)	99 (36.2)	19 (21.8)

DISCUSSION

It is all the more significant for the health care practitioners to be acquainted with BLS counter such circumstances on daily basis. The theoretical acquaintance and practical skills of BLS are the basic influential factors of a triumphant CPR technique and are of highest significance. Outlook plays a great role, especially for opening the BLS process. BLS practice is very much uncomplicated and ought to be known even by a layman; though, it is still far away from reach in nation like India. With the recognized advantage of CPR, developed nations

have previously suggested BLS training even for high school students nearly a decade ago.^[8]

The present study exposed that A 52 (91.2) % of doctors were acquainted with the abbreviation of BLS whereas 202 (73.9)% of medical students were aware of the abbreviation of BLS. A 76 (87.3) of nursing students and 46 (73.0) of nursing staff knew the abbreviation of BLS. When asked for abbreviation of AED, 45 (78.9) of doctors, 31 (11.3)% medical students, 31 (11.3) of nursing staffs and 15 (17.2)% of nursing students answered it correctly ie, Automated External Defibrillator. In another study conducted among final year undergraduate medical, dental, and nursing students in India, also, the preponderance of the students (70%) had a fair understanding of the basics of BLS such as the terms and abbreviations used in BLS. Also, this study in accordance with others (Chandrasekaran et al., 2010; Srinivas et al., 2014)^[9,10] emphasized the cognitive approach to the general attitude and skills of Basic Life Support, early appreciation of acute coronary syndrome and stroke. The suitable acquaintance score, although not significant was higher among nursing compared to medical students, this explained why doctors were mostly not confident in carrying out effective CPR. The same finding has been reported by others (Chandrasekaran et al., 2010; Casey et al., 1984).^[9,11] A study was carried out by Sharma Rand Attar, regarding adult basic life support consciousness and information among Medical and dental interns passing out from K.S. Hegde Medical College, Mangalore. It displayed that even though Almost all interns had heard about BLS, the correct knowledge regarding BLS was lacking among them.^[12]

CONCLUSION

This study demonstrated that there is a need of information about BLS among health care professionals which is also mirrored in studies demeaned elsewhere. Consciousness and information about basic life support is obligatory among health care professionals as they meet such state of affairs on a daily basis, and will help them a long way in saving lives. A formal BLS refresher training is necessary for preservation of BLS skills and to continue capability in the technique. In community lay person should be expectant to take part in such type of workshop.

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How to cite this article: Bhargava S, Tiwari D. Basic Life Support: A Study on the Assessment of Knowledge of BLS among Healthcare Professionals. Ann. Int. Med. Den. Res. 2016; 2(5):MC01-MC04.

Source of Support: Nil, **Conflict of Interest:** None declared