

CURRENT SCENARIO: KNOWLEDGE OF BASIC LIFE SUPPORT IN MEDICAL COLLEGE

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ABSTRACT

A workshop has been conducted on basic skill of Cardio-Pulmonary Resuscitation (CPR) among doctors and nursing staff in medical college. Theoretical aspect was explained through power point presentation whereas practical aspect was demonstrated through skill station. The results were analyzed by using an answer key prepared from BLS manual of American Heart Association (AHA). Out of 117 participants only three participants secured 80-90% marks in pretest whereas rest of secured less than 50% marks. Post workshop assessment was done with same question papers showed 70% candidates securing more than 80%. Hence BLS workshop is essential to improve knowledge and skill of CPR.

Key words: BLS, Knowledge, CPR, Doctors, Nursing staff

INTRODUCTION

Basic Life Support (BLS) and Advanced Cardiac Life Support (ACLS) are part of CPR^{1,2}. Basic Life Support (BLS) includes recognition of signs of Sudden Cardiac Arrest (SCA), heart attack, Cardiovascular stroke, foreign body airway obstruction and Automated External Defibrillator (AED)³. It is important that people in the community knows BLS skill to save lives and improve the quality of community's health. This becomes more important for doctors and paramedical staff who are facing life threatening situations. In this study we showed that hands on skill make an obvious difference to improve skill of BLS among various health sectors.

METHODOLOGY

Study design: It was an interventional study where effect of BLS workshop was evaluated based on the pre training and post training assessment score.

Study participants: Medical and para medical staffs were included in the study.

Intervention: BLS workshop was conducted for three days by BLS and ACLS trained instructors of AHA. First day 40 doctors, second day 26 nursing staff and third day 51 nursing staff participated for training

programme. The training cum workshop was divided in to two sections; one was theoretical part and second was hand on skill.

Theoretical aspect was explained by expert in the field. Power point presentation was used for better visual impact on the participants. Hands on training were also given to the participants. This practical aspect was demonstrated live on normal individuals in medical college. Same training personnel and presentation were used for all three batches of training to maintain same intensity of training.

Evaluation of effect of Training: A questionnaire with 15 questions was prepared to evaluate the knowledge of CPR. The aspect on which they were interrogated like: the abbreviation of BLS, AED and EMS, Assessment and resuscitation techniques. The question paper was asked to filled up by all the participants before the start of the training. The same questioner was asked to filled up by all participants at the end of training session.

Analysis: The data were entered in to computer and analysed using SPSS software. Pair t test was used to establish statistical significant between pre and post training score. The difference is said to be statistically significant at 95% confidence interval when p value is less than 0.05.

RESULT

Among 120 responders three were excluded as their forms were incomplete. Out of 117 responders 40 were doctors, 77 were nursing staff. Among doctors 5% secured 80% marks in the pretest assessment whereas in the post workshop assessment 63% of them secured 70-90% marks.

Table 1: Percentage distribution among doctors in post test (n=40)

Score	No. of Doctors (%)
< 70 %	4 (10.0)
70 – 89 %	25 (62.5)
≥ 90%	11 (27.5)
Total	40 (100)

For nursing staff 3.9% secured 80% in pretest assessment whereas in post test assessment 27% of them secured 70-90% marks.,

Table 2: Percentage distribution among nursing staff in post test (n=77)

Score	No. of Staff Nurses (%)
< 70 %	52 (67.5)
70 – 89 %	21 (27.3)
≥ 90%	4 (5.2)
Total	40 (100)

Table 3: Comparison of Pre workshop and post workshop scores

Batch of Workshop	Workshop Participants	N	Pre Test mean	Post Test mean	Paired t test P value
First Batch	Doctors	40	5.3	12.5	<0.01
Second Batch	Nursing Staff	26	5.4	9.5	<0.01
Third Batch	Nursing Staff	51	6.3	9.8	<0.01

DISCUSSION

This study emphasizes the cognitive approach to the general perception and skill of BLS. Initially many paraclinical doctors show less enthusiasm and did not come forward to respond to questionnaires. Certain questions where majority of candidates failed to answer were: location of chest compression, compression ventilation ratio in child and in adults, depth of chest compression^{4,5}, correct technique of foreign body removal from an infant .

In our study, the simulation based intervention offers a positively evaluated possibility to enhance skills in recognising and handling emergencies. Ruessler M et al⁶ also mention in their studies that simulation training improves ability to manage medical emergencies.

Shanta Chandrasekaran et al⁷ reported awareness of basic life support among medical, dental, nursing student⁸ and doctors, found only 2 out of 1054 had secured 80-90% marks. In our study , only 3 out of 117

Certain questions where majority of candidates failed to answer were: location of chest compression, compression ventilation ratio in child and in adults, depth of chest compression, and correct technique of foreign body removal from an infant.

As per the result of Paired t – test, the P value for doctors group is less than 0.01 which is suggestive of that the intervention (training) is highly effective and statistically highly significant. There was marked improvement in the mean scoring of participants after training for BLS as compared to the scoring before training and that is due to the training and skill station.

For the second batch the result of Paired t – test (p value <0.01) is suggestive of that the intervention (training) is highly effective and made statistically significant difference in the knowledge of the participants. There was marked improvement in the mean scoring of participants after training for BLS as compared to the scoring before training and that is due to the training and skill station.

Same with the third batch, the result of Paired t – test (p value <0.01) is suggestive of that the intervention (training) is highly effective for improvement of BSL knowledge. There was marked improvement in the mean scoring of participants after training for BLS as compared to the scoring before training and that is due to the training and skill station.

secured 80% marks in pretest. Hassan Zaheer et al⁹ concluded that inclusion of BLS course will increase awareness and application of this valuable life saving maneuver. Therefore BLS and ACLS training programmes should be mandatory for all medical and paramedical staff. C.A.Graham et al¹⁰ studied a survey of undergraduate training in UK medical schools found similar results. Asad abbas et al¹¹ showed that knowledge of trained student was found to be better than untrained student.

A formal BLS refresher trainig is essential for retention of BLS skills and to maintain competency in the technique. In community lay person should be encouraged to participate in such type of workshop. .In future scientific laboratory should be established in all medical college for standardization of quality CPR.

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