

**Title:** Basic life support training for first year medical students: Too much too soon?

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**Context and setting:** Basic Life Support training (BLS) is not a formal part of the undergraduate medical curriculum in Indian Medical Universities. Most medical colleges impart some form of such training in the third year of medical college, but students are not assessed for competence.

**Why the idea was necessary:** It was found that undergraduate medical students were hesitant to provide emergency medical care during medical emergencies. Nearly 79% of undergraduate students admitted feeling underprepared to handle medical emergencies and attributed it to lack of hands-on training in BLS.

**What was done:** A BLS training module was designed for first year medical students. One hundred and thirty first year medical student volunteered for the training which comprised two two-hour sessions 03 months apart. The training, in batches of 20 students, included a lecture-demonstration followed by hands-on training on manikins. Students were assessed for knowledge, skills and attitude before and after each of the two training sessions using a 10 item MCQ written exam, standard clinical skills checklist and a questionnaire.

**Evaluation of results and impact:** There was a significant increase in BLS knowledge and skills after the first training session. The mean knowledge score increased from 3.1/10 before to 8.2/10 after the first training session and 84.7% percent of the students successfully met the American Heart Association criteria for BLS skills. The self-confidence of the students increased significantly with a 36.8% reduction in the number of students who felt unprepared for providing BLS compared to those prior to the training.

A three month interval after the first training session resulted in a 55.7 % reduction in the BLS skills competence of the students. Only 37.5% of the students successfully met the American Heart Association criteria for skills compared to 84.7% at the end of the first training session. An analysis of the skills evaluation revealed that while 43%, were able to perform chest compressions and rescue breathing satisfactorily, they failed to integrate these steps of BLS in the correct sequence during a simulated emergency. Interestingly, 65% of these students had satisfactory knowledge of the correct sequence. The higher retention of knowledge compared to skills was also evident from the modest reduction in knowledge scores from 8.2/10 to 7.6/10.

These results suggest that retention of knowledge is greater than retention of clinical skills when the skills are not regularly practiced. This assumes importance in curriculum design with respect to early introduction of clinical skills training in the medical curriculum. The satisfactory acquisition and retention of BLS knowledge by first year medical students provides an encouraging basis for the introduction of BLS training during the first year of medical school. Appropriately designed refresher courses during the second and third years and the addition of advanced life support training in the final year would be necessary for the students to master life support skills by the end of the undergraduate medical curriculum. Such an integrated training programme would likely translate to a greater confidence in medical student's to handle medical emergencies.

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