

Evaluation of Knowledge and Practices about First Aid among Medical Students

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ABSTRACT

Objectives: To evaluate the awareness about first aid and the practical skills among MBBS students and to prepare them for providing first aid. **Methods:** A 3 days course of first aid by Red Cross Society of India was arranged for the students of MBBS. It consisted of theory as well as practical sessions regarding first aid for various common situations. Feedback was taken after each session, regarding contents of the session, its presentation, and practical usefulness. Overall evaluation of the course was done on a scale of 5-1, where “5” was highest and 1 was lowest rating. Qualitative feedback was recorded with the help of open-ended questions and was analyzed separately. **Results:** Maximum participants (82.2%) felt that the course was useful to them. Feedback of 45 students who attended the training shows that session of cardiopulmonary resuscitation was appreciated by maximum students, followed by that on casualty management. A minimum improvement of 40% can be seen over the pretest scores of the students. The willingness of students to be trained in first aid skills and their agreement in favor of introduction of such training at the earliest was similar to findings of other studies from Asia. **Conclusion:** The study emphasizes the need for first aid training as a felt need among medical students. A 3-day training in first aid included as a part of the curriculum during the course of MBBS will be useful in preparing the medical students to face emergencies.

Key words: First aid, medical students, practical skills


INTRODUCTION

First aid is the initial assistance or treatment given at the site of accident to someone who is injured or suddenly taken ill, before the arrival of ambulance.^[1] A first aid provider should be able to assess the situation quickly and calmly, deal with life-threatening

conditions outside the facilitated environment of a hospital.

Knowledge of first aid among medical students has always been a neglected subject. At some point in a medical curriculum, students are taught how to handle emergencies in a hospital emergency setting where drugs and other necessities are available. However, the adequate knowledge required for handling an emergency without hospital setting at the site of the accident or emergency may not be sufficient.^[2,3] Evaluating abilities of medical students have been an important aspect of medical education.

With this background, study objectives of the study were to evaluate the awareness about first aid and the practical skills among MBBS students and to prepare them for providing first aid.

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METHODS

A 3 days course of first aid was arranged for the students of MBBS in January 2015 in a private medical college in Maharashtra. All the students who volunteered for the project were included in the project. The course was conducted by Indian Red Cross Society. It consisted of theory as well as practical sessions regarding first aid for various common situations such as burns, bites, fractures, cardiopulmonary resuscitation (CPR), bandages, and transportation of patient. Certified first aid providers were involved for giving the training. Feedback was taken from the students at the end of the session.

The training included theory and practical sessions on disaster management, wounds and bleeding, CPR, burns, convulsions, poisoning and bites, fractures and transportation, and casualty management. Validity of questionnaire was confirmed by trainers from Red Cross Society of India. Feedback was taken after each session, regarding contents of the session, its presentation and practical usefulness. A score of "3" indicated excellent, "2" denoted average, and "1" indicated needs improvement. Thus, total marks for each session were 9. Overall evaluation of the course was done on a scale of 5-1, where "5" was highest and 1 was lowest rating. Qualitative feedback was recorded with the help of open-ended questions and was analyzed separately. Data were summarized using appropriate statistical tools.

RESULTS

In all 45 students attended the training. Average rating for the course was 3.72 out of 5. Figure 1 shows the percentage of rating for overall course. None of them rated the score below 3 and 13% rated it above 4.

Feedback was taken for each session separately. Figure 2 illustrates average rating for various sessions. Session related to CPR was appreciated maximum, followed by that on casualty management.

In-depth analysis for of each session with respect to content, presentation and practical showed that participants expected to have more practical sessions for disaster management. 37.7% participants felt that this practical needs improvement. Similarly, 20% participants felt that practical session for convulsion needs improvement. As compared to that, excellent rating was given for the practical sessions by 88.89% participants for CPR, by 71.7% participants for management of fracture and transportation, and by

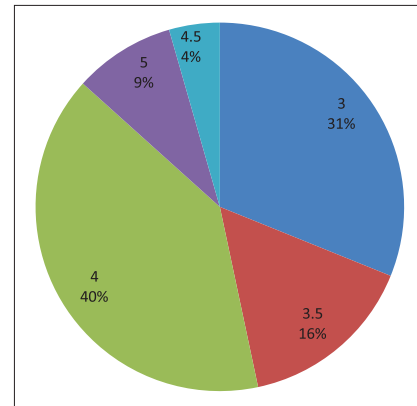


Figure 1: Overall rating of the course

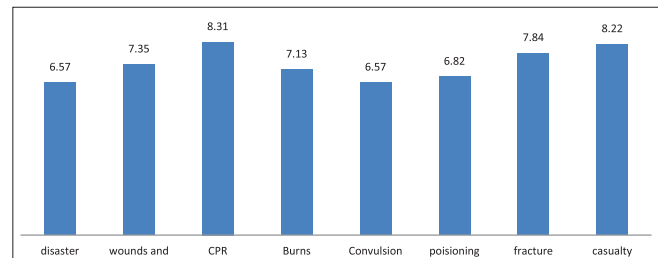


Figure 2: Feedback for various sessions

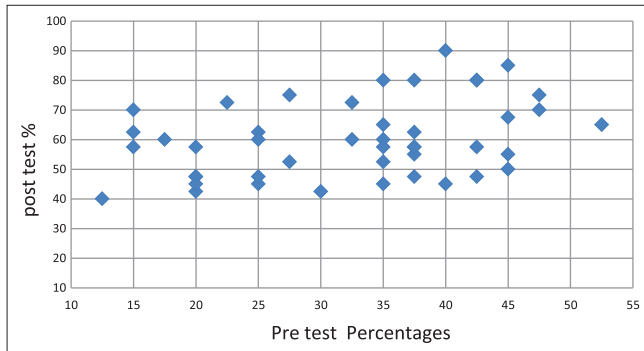
68.7% participants for management of wounds and bleeding.

Maximum participants (82.2%) felt that the course was useful to them. Most of the participants 93.3% said that they will recommend this course to other students of MBBS. Few students also mentioned that as medical students they are trained to think of the disease and its management, but this training taught them to think in the direction of primary care as basic life-saving services. However, two participants opined that the course should be modified keeping the students were from medical background. Need of more practical sessions was also expressed by many participants.

On analysis of individual scores, it was observed that except 1 student, all the others scored <20% in pretest. Table 1, and none of them scored more than 70%. As against this, none of the students scored <25% in posttest and 73.3% of them scored more than 50%. This implies that the course was effective in providing the knowledge to the students. Figure 3 illustrates correlation between scores of pretest and posttest of the students. A minimum improvement of 40% can be seen over the pretest scores of the students. This indicates that every student gained at least 40% more knowledge, at the end of the course.

Table 1: Pre- and post-test results

Percent students	Pretest	Posttest
<25%	15	0
25-50%	29	12
50-70%	1	23
>70%	0	10

**Figure 3:** Correlation of pre-test and post test scores

DISCUSSION

The willingness of students to be trained in first aid skills and their agreement in favor of introduction of such training at the earliest was similar to findings of other studies from Asia. In a study of 152 medical students from South India, Joseph *et al.* reported that all the students were willing to undergo training for first aid. Similarly, Khan *et al.* in a study at Karachi reported that 94.4% medical students wanted first aid training to be part of their curriculum with 84% suggesting that it should be part of preuniversity curriculum.^[2]

Hunskar and Seim observed notable differences between exposures to some of the procedures within and outside teaching situations and thus opined that opportunities may be increased by expanding already existing scheduled activities to increase students' experiences in practical procedures during medical practice.^[4] Chandrasekaran *et al.* in a study among medical, dental, nursing students, and doctors observed that 83% of the medical students scored <50% of the marks and the practicing and teaching doctors in this study scored less compared to the nursing teaching faculty.^[5] Low knowledge about first aid among medical students was also noted from southern parts of India.^[6] Thus, it is now essential to standardize training in advanced life support and makes it a mandatory component of all medical, nursing and paramedical school undergraduate curricula.^[7]

Alanazi *et al.*^[8] in a study of 101 medical students of Saudi Arabia emphasized the need for their training and experience in the field of basic life-saving training. Medical Council of India has recommended that a course on first aid should be mandatory to the students in the 1st year going a step further Abbas *et al.* while comparing knowledge of first aid and basic life support between trained and untrained medical students felt that to improve the knowledge of medical students on first aid, their knowledge should be reinforced every year.^[9] Similarly, Asmita *et al.*^[10] and Singh *et al.*^[11] observed increase in awareness from 50% to 80% after basic life-saving workshop was organized for doctors and nurses.

CONCLUSION

This study suggest that a 3-day training by red cross society, included as a part of the curriculum during the course of MBBS, will be useful in preparing the medical students to face emergencies. As suggested by Medical Council of India, the study also brings out the need for first aid training as a felt need among medical students. In addition, students will be certified as a trained first aid provider by red cross society. This will be additional qualification in practice. It will also be useful in making them more interested clinically oriented and socially responsible right from the beginning of their professional course.

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