Knowledge, attitude and practices regarding basic life support among medical students of Rawalpindi Medical University, Rawalpindi.

Nukhba¹, Noor Fatima¹, Mamoona Akram¹, Muhammad Hamza²

¹Final year, Rawalpindi Medical University
²House Officer, Benazir Bhutto Hospital, Rawalpindi

Abstract

Introduction: The Knowledge of Basic Life Support (BLS) is very important, especially for medical students who will become future doctors. These simple life saving maneuvers can ensure the patient’s survival and reduce morbidity and mortality.

Objective: The objective of this study was to determine the level of knowledge, attitude and practice of BLS among medical students of the Rawalpindi Medical University, Rawalpindi.

Methods: In this descriptive cross sectional study, medical students (3rd & 4th year MBBS) of RMU (n=376) were inquired using a self-structured questionnaire of 20 questions regarding the knowledge, attitude and practice of BLS. After excluding the incomplete response forms, the data were analyzed using SPSS v. 22.0.

Results: Twenty five percent students had good, 65.7% had average and 9.3% had poor knowledge of BLS. Out of 376, 12.76% respondents were satisfied with their present knowledge. The Majority (93.08%) had a positive attitude towards learning BLS. Only 6.6% had practiced BLS and 65.69% were unable to perform CPR independently.

Conclusion: Majority had an average knowledge and a positive attitude towards BLS but very few could perform it independently. This demands that the practice should go hand in hand along with its knowledge.

Key Words: Basic Life Support (BLS), Cardiopulmonary Resuscitation (CPR).

Introduction

Basic Life Support (BLS) pertains to a level of medical care provided to victims of life threatening illnesses and injuries before professional help is provided. It includes cardiopulmonary resuscitation (CPR), control of bleeding, treatment of shock and basic first aid. Basic first aid targets to maintain airway, breathing and circulation(ABC) without auxiliary equipment.¹ These simple life saving maneuvers, if provided at the right time, can ensure the patient’s survival and many times, they themselves are self-sufficient for survival.²³ Bearing such an extreme importance, this knowledge becomes a necessity for everyone to acquire. The medical as well as nursing students, being a part of health care team, are expected to have this knowledge and practice these skills, as and when required.⁴ Various studies have been conducted on the medical students all around the world to assess their level of awareness regarding BLS.⁵⁷ In an Indian study, only 31% knew the full form of BLS and only 12.9% had ever practiced BLS.⁸⁹ A research in Nigeria showed concern towards the graduating students who had poor BLS skills while in Ethiopia, 98.3% respondents considered the training to be important before graduation.¹⁰¹¹ Turkey considered it quite yielding to teach medical students first aid and BLS skills.¹² Saudi Arabia also showed poor awareness among the participants.¹³¹⁴ In Pakistan, a study in Karachi showed 57.3% students had no practical knowledge relevant to BLS¹⁵ and in Rawalpindi, Islamabad there was inadequate CPR awareness among the medical students.¹⁶

In this study we want to assess the knowledge, attitude and practical skills of medical students of Rawalpindi Medical University. Although medical students have certain level of awareness concerning BLS, they are unable to apply it practically. They naturally need to be certified in these types of skills as they are the ones anticipated to do so in emergency situations. There should be provision of specific rules along with guidelines that specify a minimum level of BLS. This study will provide a basic outline on which we can work to improve skills of medical students that in turn would facilitate patient care in emergency situations.
Materials and Methods
This study was a descriptive cross sectional study which was conducted from 1st May 2016 to 31st October 2016. Random sampling technique was used. This study includes analyzing the responses to 20 selected basic questions regarding knowledge, attitude and practice of BLS among medical students of third and fourth academic years (MBBS) of the Rawalpindi Medical University (RMU), Rawalpindi. Using a WHO sample size calculator, minimal required sample size was calculated to be 376 by keeping a confidence level of 95%, anticipated population proportion 0.42715 and absolute precision required was kept 5%. Respondents were included irrespective of age and gender. The incomplete response forms were excluded. Knowledge of respondents was checked by asking about the abbreviation of BLS, its constituents, assessment and resuscitation techniques. The total score was 33. Twenty seven to thirty three (27-33) score was graded good, (20-26) as average and (19 or below) as poor knowledge. The attitude was judged by satisfaction with their present knowledge and the need to acquire more skills. They were asked about their ability to independently perform CPR to assess practice.

After approval from the International Research Forum of RMU, the study was conducted in duration of 6 months. Verbal consent was taken from the students after informing them about the questionnaire in a detailed manner. These questionnaires were distributed only when the students consented and were filled personally by themselves.

Data obtained was entered in the SPSS Version 22.0. Frequencies and percentages were calculated for all categorical variables. Results were analyzed, tabulated, interpreted and concluded.

Results
In our study, out of 376 students, 200 were from third year and 176 from fourth year MBBS students. Female to male ratio was 1.35:1. The study showed that 25 % students had good, 65.7% had average and 9.3% had poor knowledge of BLS. Majority had a general idea of BLS which was assessed by their correct answers. Approximately eighty percent (80.3%) answered correctly when inquired about the abbreviation of BLS and 60.4% were aware of its basic components (CPR and ABCD protocol). The majority, 60.9%, 70.3% and 81.9% students answered correctly when asked about method of checking airway, breathing and circulation respectively.

Table I Shows the results of the questions asked to assess the attitude towards BLS. Respondents were also inquired about their practice pertaining to BLS and whether they could perform it independently or not. The results are shown in (Chart 1).

Among the 376 participants, only 57 (15.2%) had attended any course regarding BLS. The course was attended through means such as clinical rotations (3.7%), workshops (3.5%), lectures/book(5.9%), internet (1.9%) and others (0.3%).

Table 1. Assessment of attitude regarding BLS.

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Yes (%)</th>
<th>No (% age)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you think medical students need to know about BLS?</td>
<td>96.8</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Do you think people expect you to be proficient in CPR?</td>
<td>88.82</td>
<td>42</td>
</tr>
<tr>
<td>3</td>
<td>Are you satisfied with your present knowledge about BLS?</td>
<td>12.76</td>
<td>328</td>
</tr>
<tr>
<td>4</td>
<td>If not do you want to learn the skills?</td>
<td>93.08</td>
<td>26</td>
</tr>
<tr>
<td>5</td>
<td>Would this help to increase your interest on clinical side?</td>
<td>92.28</td>
<td>29</td>
</tr>
<tr>
<td>6</td>
<td>Do you think that this knowledge of yours would benefit everyone?</td>
<td>92.5</td>
<td>28</td>
</tr>
</tbody>
</table>

Discussion
Since the BLS is a practical knowledge, sound information along with efficacious skills is required to attain perfection in patients’ care in ER settings. Health professionals are expected to have good BLS knowledge and skills. This study was done to probe the present knowledge, attitude and practice of medical students of RMU so as to provide a basic framework on which we can work to expertise ourselves in BLS.

The Majority (90.7%) were able to answer correctly about general aspects of BLS. In our setting, this study highlighted the fact that the majority (65.69%) were
unable to perform CPR independently and were unsatisfied with the degree of knowledge (87.24%). Another study has demonstrated that improvement in knowledge requires its reinforcement every year in medical students.17 The few who are confident in performing CPR were those who had previously attended some BLS courses (15.2%).

Abbas A et al also concluded that knowledge of trained personnel was better than those of untrained ones.18 93.80% respondents showed a positive attitude towards learning BLS and their interest to perform it despite the paucity of their present skills.

Various studies have been conducted on the medical students all around the world to assess their level of awareness regarding BLS.5-7 Among the 1190 Indian respondents, only 31% knew the full form of BLS and only 12.9% participants among 241 had ever practiced BLS.8,9 A study in Nigeria showed concern towards the graduating students who had poor BLS skills because they are the ones required to be competent in this regard while in Ethiopia, all respondents (98.3%) considered the training to be important before graduation.10,11 In Turkey, it was considered quite yielding to teach medical students First aid and BLS skills as they can become sound trainers for other university students.12 Saudi Arabia also showed poor awareness among the participants.13,14 In Pakistan, a study in Karachi showed 57.3% students had no practical knowledge relevant to BLS15 and in Rawalpindi, Islamabad there was inadequate CPR awareness among the medical students and doctors.16 To summarize, our study reflected that for students, it is necessary that BLS training and assessment should be a part of curriculum in undergraduate medical students. Medical students should be certified in these skills as they are expected to be so in ER settings.

Conclusion

The majority had an average knowledge and a positive attitude towards BLS but very few could perform it independently. This demands that the practice should go hand in hand along with its knowledge.

Acknowledgements

We are highly indebted to Professor Dr. Muhammad Umer (VC RMU) for providing us a platform to conduct this research. Also, we are extremely thankful to Dr. Faiza Aslam (Research Co-ordinator RMU) and team RSRS for the continuous support and guidance.

References