

Knowledge And Attitude Towards Cardiopulmonary Resuscitation Among Medical University Students

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Abstract

CPR is lifesaving technique which is useful in many emergencies. CPR is essential in case of suffocation, near drowning, electrocution injuries heart attacks or any other situation in person's breathing or heartbeat has stopped. This involves a combination of rescue breathing and chest compressions. The study was performed to access the knowledge and attitude towards CPR among MBBS and DPT students. The data was collected from different medical university. Data was collected by means of questionnaire. Data analysis was done by using SPSS version 21. Out of study sample of 137 students 99.3% have prior CPR information. Of those with previous knowledge 43.8% feel that their knowledge is not sufficient. 83.2% of students would like to learn how to perform CPR. This shows their positive attitudes towards CPR. The conclusion of the study was found that MBBS and DPT students have positive attitudes towards CPR. However, their knowledge on that topic was sufficient. Lack of the knowledge was the most common cause of not performing CPR. Therefore, more focus should be placed on the improvement of CPR skills. In addition, more studies are needed to access the knowledge and attitudes towards CPR. Free training courses must be conducted to increase the knowledge and attitude in peoples.

Keywords: Cardiopulmonary Resuscitation, Medical Students, Knowledge.

Introduction

Cardiopulmonary resuscitation (CPR) is a lifesaving method that can be utilised in numerous emergency situations. Cardiopulmonary resuscitation is vital in situations where a person's breathing or heartbeat has stopped, such as suffocation, near-drowning, electrocution injuries, heart attacks, and any other similar circumstance. This involves a mix of rescue breathing and chest compressions, which maintain the flow of oxygenated blood to the brain and other essential organs until more definite medical therapy can restore a normal cardiac rhythm. A few minutes after the heart stops beating, the lack of oxygenated blood can cause permanent brain damage. Within 10 minutes, a person will die (Goldstein and Beckwith, 1991). Timing is of the essence when assisting someone in cardiopulmonary arrest. The sooner CPR is administered, the higher the likelihood of a successful resuscitation. The American Heart Association refers to cardiopulmonary resuscitation as a link in

the "chain of survival" (Cummins et al., 1991). The chain of survival is a series of actions that, when performed sequentially, will double the chance of survival for cardiac arrest victims (Vukmir, 2004). In the late 1950s and early 1960s, modern CPR was established. Elam and Safar were the discoverers of mouth-to-mouth ventilation (Elam, 1977). Subsequently, the benefits of chest compressions were recognized (Kouwenhoven et al., 1960). Eventually, the two procedures were integrated to create CPR as it is done today. Patients with witnessed cardiac arrest who received compression-only CPR had a considerably greater survival rate than those receiving regular CPR. Two retrospective registry studies have demonstrated comparable survival rates between compression-only CPR and standard CPR (Nagao et al., 2007; Bohm et al., 2007). Pakistan had a higher incidence of dead-on arrival patients than other equivalent resource settings (approximately 1 to 2 per 1000 visits), and they noted a lack of bystander CPR and prehospital care as one of the contributing factors (Khurshheed et al., 2015). According to a 2004 study conducted in New Zealand, 74% of 400 individuals had previously received CPR training. 73% of those surveyed wished to learn more about resuscitation (than they currently did). In addition, 70% of respondents believed that resuscitation should be a mandatory component of New Zealand's driver's license examinations (Larsen et al., 2004). Another 2006 study conducted in the United States indicated that among 868 cardiac arrests, 54.1% of bystanders had received CPR training. In 21.2% of cases, the bystander-initiated CPR immediately. Frequent reasons reported by CPR-trained bystanders for not administering CPR include the following: 37.5 percent said they panicked, 9.1 percent believed they would be unable to perform CPR effectively, and 1.1% believed they would harm the patient (Swor et al, 2006). Given the importance of students to the well-being of the community, these studies are uncommon in Pakistan, according to our knowledge. This study seeks to evaluate the knowledge and attitudes of Medical University students regarding cardiopulmonary resuscitation.

Material and Method

Male and female Medical University students participated in a cross-sectional survey. Sample was collected by convenient random sampling method. Students were selected based on criteria like young age (22-26 years) and chance of encountering CPR-required conditions. To acquire the necessary data, a pre-designed, methodical questionnaire was accompanied by a graphical representation of CPR performance. Before completing the questionnaire, the study's purpose was outlined. All participants in the study provided their verbal consent. The surveys enquired about personal information, CPR knowledge, sources of this knowledge, abilities, and CPR interest. It also featured questions and suggestions for the most effective ways to promote CPR knowledge. Questionnaires obtained 137 replies from 4th and 5th year of and MBBS and DPT students at a medical university. 1st, 2nd, and 3rd year students were excluded from study. After data collection was complete, it was reviewed, organised, tabulated, and the data was analyzed by SPSS. Mean was calculated of all values, and the results were displayed by percentages of mean values in figures and tables. The data was characterised by frequencies and percentages.

Results

The mean age of the students that were included the study is 23.48 with standard deviation of 1.734. Out of 137 students 83(60.6%) were females and 54(39.4%) were males. 68(49.6%) were DPT students and 69(50.4%) were MBBS students (Table: 1).

Table: 1. Demographic Profiles of Students

Variables	Categories	Respondents	Percentage
Gender	Male	54	39.4%
	Female	83	60.6%
Student	MBBS	69	50.4%
	DPT	68	49.6%

Those who have information about CPR were 136(99.3%) and those who don't know about CPR were 1(0.7%). Only 30(21.9%) were encounter the situation of CPR, rest of the student were not performed 107(78.1%). Students who said they have sufficient knowledge about CPR were 77(56.2%) and those who assumed they don't have sufficient knowledge were 60(43.8%). 100(73.0%) students have training bout CPR while 37(27.0%) students don't have training. Students who want to learn about CPR were 114(83.2%) those who don't want 23(16.8%). CPR training courses should be mandatory by 126(92.0%) students and should not be mandatory by 11 (8.0%) (Figure: 1).

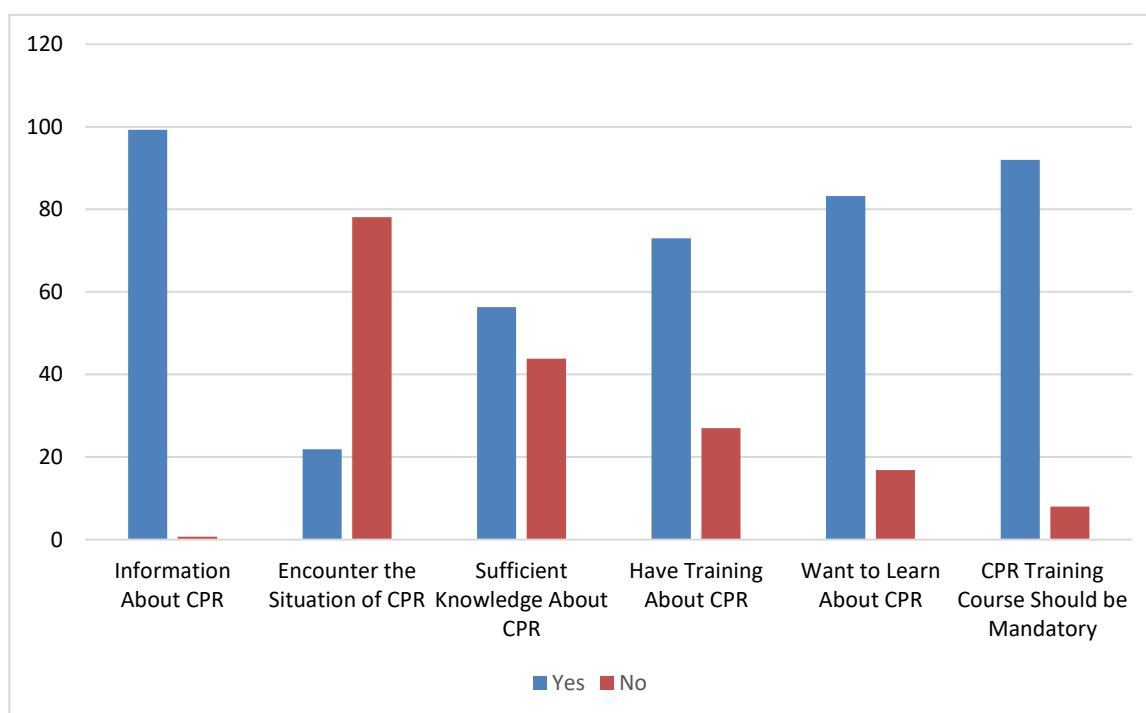


Figure: 1. Student Knowledge and Training of CPR

To know about the correct sequence of CPR steps, out of 137 students, 99(72.3%) answered performed compressions, maintain airway, and performed breathing, 33(24.0%) answered perform compressions, perform breathing, and maintain airway, while 5(3.7%) answered maintain airway, perform artificial breathing, and perform compressions (Figure: 2).

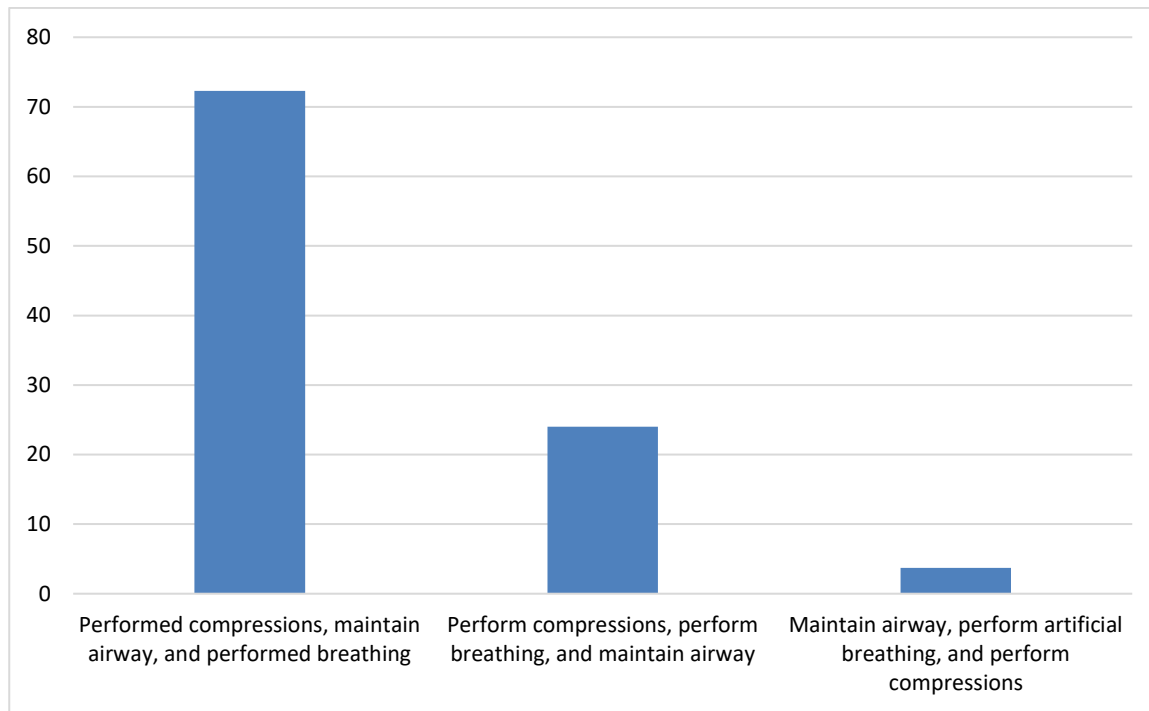


Figure: 2. Steps to Performed CPR

During encounter a situation that requires CPR, out of 137 students 39(28.5%) answered call for ambulance, 78(56.9%) answered begin CPR, 12(8.8%) answered take the victim to the nearest hospital and 8(5.8%) said nothing (Figure: 3).

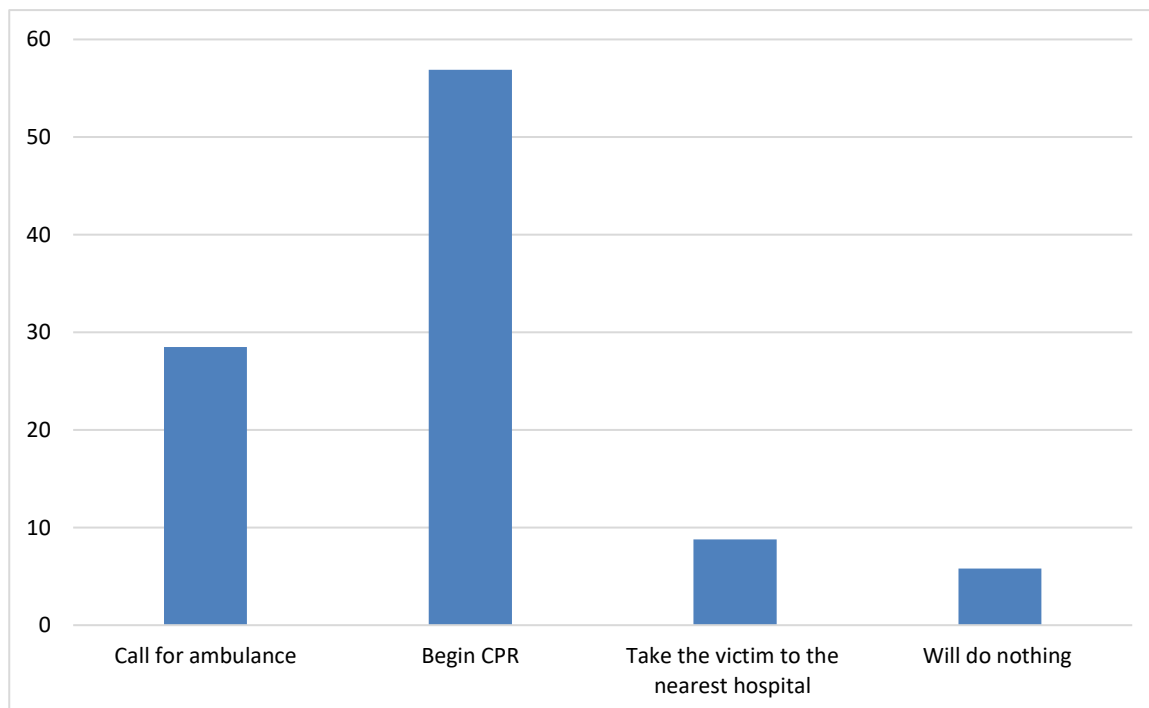


Figure: 3. Encounter a situation that requires CPR

Discussion

Cardiopulmonary resuscitation is an essential life-saving technique that should be taught to all community members. Fortunately, the majority of students recognise the significance of this talent. Nonetheless, 43.8% continue to believe that their expertise is insufficient. This lack of information rendered CPR ineffective in around 50% of circumstances where it was necessary. In contrast, a US survey revealed that 9.1% of respondents did not administer CPR because they lacked confidence in their ability to do it appropriately (Swor et al, 2006). This demonstrates the necessity to expand people's understanding of the subject. In addition, one-third of CPR trainees did not know the proper ABC sequence, indicating a concern that must be studied further. Evaluations of the community's CPR and first aid knowledge are in need of expansion. A further evaluation of the merits and drawbacks of CPR training programmes is also required, as one-third of trainees did not know the ABC order. By analysing the responses, numerous recommendations may be made to improve the understanding and attitudes of medical university students regarding CPR. The media may have a significant role in this situation. The greatest method to reach this key group and underline the need of CPR, training centre locations, and training duration is through the media. Moreover, institutional involvement is an essential component. The majority of university students favour CPR training as a graduation requirement.

Conclusion

In conclusion, it was discovered that the general opinion towards CPR was really favourable. Nevertheless, insufficient knowledge of the subject existed. Therefore, more emphasis should be made on improving CPR abilities. In addition, more research is required to analyse the community's CPR knowledge and attitudes.

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