

# Knowledge, Attitude and Practice of CPR among Higher Secondary Students

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**Abstract:** This paper presents a study on knowledge, attitude and practice of CPR among higher secondary students.

**Keywords:** Higher Secondary Students, cardiopulmonary resuscitation

## 1. Introduction

Research from the Indian medical association (IMA) found that around 300,000 lives across India could be saved every year if more people knew how to do cardiopulmonary resuscitation (CPR). Cardiopulmonary resuscitation is an important medical procedure which is performed in an effort to manually preserved intact brain function until further measures are taken to restore normal spontaneous blood circulation and breathing in a person in cardiac arrest. It is a combination of rescue breathing and chest compression, which is delivered to the victims who are thought to be in cardiac arrest. Being important members of the health care team; medical students are deemed to pass the basic skills and expertise which are needed to perform CPR.

Cardiac arrest continues to be a major cause of premature death in much of the world today. Although the epidemiology of cardiac arrest has been well studied in many developed countries, there are little studies done on assessments of knowledge, attitude and practice on CPR in higher secondary students. This study was emphasized on assessments of knowledge, attitude and practice on CPR, so it may provide baseline information for other researcher and health professional who are interested on same area.

## 2. Material and methods

The study was conducted in selected higher secondary schools in Kashipur, Udham Singh Nagar District. The study design was cross sectional study design. The sample size was determined by single population proportion formula using  $p=0.5$ , the sample size was 100. simple random sampling was used to assess KAP of clinical year students. Data collection was carried out by formatted questionnaire, which consisting of general information and self-designed KAP questionnaire. The response was circled or written with pen in provided space. The data was collected in collaboration with the principal investigator and other three third-year anesthesia students, just after training on the topic and how to collect the data was given.

After the study was conducted the collected data was filled on prepared tally sheet and analyzed using different materials, and for categorical variables' Chi-square and P-value was implemented. P- Values  $< 0.05$  were considered significant.

## 3. Results

Majority of higher secondary students range between age of 17-18 (60.8%), and the rests are above 18. Most of them are males (51.6%) and among these 1st year 39.5%, and (60.5%) were second years.

About 95.7% of the respondents knew about CPR. Most of the sampled students had a good knowledge about CPR which 83.3% were males. No significant associated indicated among sex, age distribution and knowledge of CPR of students as p value is  $\geq 0.05$ , but as study indicates there was significant association between academic year, source of information of CPR and knowledge of CPR as p value is less than 0.05.

Majority of sampled students got their knowledge from video assisted lecture at class (50.40%), followed by you tube, which accounts 21.5% and 5% of them got from movies. As study showed about 79.8% of respondents had identified cardiac and respiratory arrests were the major indication of CPR. 15.2% of them were identified apparent sudden death as an indication of CPR.

All of participants were agreed that they can play major role in helping people face sudden emergency events and give a basic idea of CPR technique to their fellow students 93.8% of the respondents found to have positive attitude as compared to 7.4% of respondents noticed with negative attitude. Attitude level among all age, academic year and source of information found to be statistically significant (as p value is less than 0.05). However, no significant association between sex and attitude of students towards to CPR. 98.7% of students were revealed that lack of training as major factors affecting practice of CPR, followed by poor exposure (93.56%). Nearly 84% participants state that lack of confidence is one factor affecting practice of CPR. There is significant association between lack of training, inadequate information, lack of confidence, Poor exposure and practice of CPR as p value is less than 0.05.

## 4. Discussion

The findings of study were discussed in the light of previous

study. This was conducted to assess knowledge, attitude, practice and associating factors with CPR in selected higher secondary schools in Kashipur, Udham Singh Nagar District. About 93.3% of the respondents had excellent knowledge about CPR with and 6.7% of them had poor knowledge. Study conducted on 35 personnel of CPR in a hospital at the Golestan University of Medical Sciences, 2007 in the Northeast of Iran implies the CPR personnel had a good knowledge before education (57%), and it improved significantly to 92% after the lectures and to 94% 2-months later, in all items related to basic and advanced CPR.

Almost all of respondents (98.3%) belief that CPR training before graduation is important, which is higher when compared to study done in Singapore, which accounts 85.5. 93.8% of the respondents found to be positive attitude as compared to 7.4% of respondents noticed with negative attitude. Hence, awareness about importance of CPR before graduation needs to be encouraged in our hospital, and more emphasis should be given to them.

In this study, the respondents (63%) were willing to do chest compression and mouth to mouth ventilation. Only 26.3% participants were not opposed to performing CC and 10.7% were not opposed to performing mouth to mouth ventilation. Similar study conducted at Asahikawa Medical College Hospital a sample size of total 4223 individuals (male 50%) completed the questionnaire, including high school students, teachers, emergency medical technicians, medical nurses and medical students, showed that about 70% the subject had experienced CPR training more than once providers reported willingness performing Chest Compression (CC) and Mouth to Mouth Ventilation (MMV) on a stranger or trauma victim. In this study 98.7% of students were revealed that lack of training as major factors affecting practice of CPR, followed by poor exposure 93.56%. Only 84% participants state that lack of confidence is one factor affecting practice of CPR, which is similar with study done in Korea which nurses need trainings within four months otherwise they forget.

### 5. Conclusion

Overall, the majority of students' knowledge, attitude and practices toward CPR in higher secondary schools were not sufficient, favorable and safe enough. Most of the participants got, their knowledge from video assisted lecture at class, followed by you tube. The majority of respondents were eager for do chest compression and Mouth to mouth ventilation. Most of the studied participants didn't practice CPR. Most of the respondents had identified cardiac and respiratory arrests were the major indication of CPR. Overall, Majority of participants had positive attitude about CPR, still it is not sufficiently as CPR is a life-saving measure that every health personnel be quite sure to do it. So as training is a significant factor which reinforces students to initiate CPR.

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