

Community Awareness About Cardiopulmonary Resuscitation Among Secondary School Students in Riyadh

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Abstract: It is very important that every person in the community know about Cardiopulmonary Resuscitation (CPR) to save lives and improve the quality of community health. However, there is a lack of research studies related to community awareness about CPR. The aim of this study was to examine the awareness and knowledge among secondary school students. Across-sectional design study was conducted by assessing the responses to self administered developed questionnaire. The questionnaire includes 11 questions regarding the awareness and knowledge related to CPR. The four first questions also involved the attitude of students about the application of CPR. Five hundred and eighty males and females students from Riyadh secondary schools answered and completed the questionnaire. Results revealed that: Out of a study sample of 580 males and females secondary school students, 56% did not have proper CPR information. The proper CPR information was higher among females than males: it was 87% and 61% for females and males students respectively. About 67% of all students would like to know more about CPR. Discussion: We examine the community awareness about CPR among secondary schools in Riyadh. There are sparse published studies which investigated the knowledge of CPR among school students. However, the lack of proper CPR information among students in this study was higher than previous CPR awareness studies. The possible explanation for this could be that other studies were carried out with health professionals who usually trained or oriented about CPR. The positive attitude towards CPR was similar to previous findings indicating the important role of CPR in saving patients life. Larger sample size and inclusion for more schools and universities would offer more information. As a conclusion / recommendation: It was found that the overall attitude is positive towards CPR. However, the proper CPR information was insufficient. Since CPR plays vital role in saving people life more studies are needed to examine the CPR information among people who live in the community and suggest strategies to introduce CPR training.

Key words: Cardiopulmonary Resuscitation (CPR) • Secondary Schools Students • Awareness • Knowledge

INTRODUCTION

Basic Life Support is a method of maintaining cardiac output following cardiorespiratory arrest. It is well established that early cardiopulmonary resuscitation (CPR) improves the chance of surviving out-of hospital cardiac arrest [1-4].

The knowledge of CPR is a major determinant in the success of resuscitation and plays a vital role in the final outcome of acute emergency situations [5]. Various studies investigated the awareness of health professionals' knowledge and experiences of CPR [6-10]. For example, the knowledge and experiences of CPR was

examined in 61 medical students and found that out of these students only 9 (14.7%) had taken CPR course while 52 (85.3%) students had not attended any such course [6]. Similarly, in another study the knowledge and experience about CPR was less than score of 50% in medical and dental intern's students, despite that all of them were aware of its important [7]. In recent study, the awareness was examined among students, doctors and nurses of medical, dental and nursing colleges. The result showed that the awareness of health professionals about CPR was poor [6, 9]. However, the limitations of these studies are that it was mainly included interns or graduate medical professionals with limited information about CPR among

people who live in the community such as school students. Thus, the aim of this study was to examine the awareness and knowledge among secondary school students.

MATERIALS AND METHODS

Across-sectional design study was conducted among high school students in Riyadh by assessing the responses to self administered developed questionnaire. The inclusion criteria were male and female students who enrolled in high school. Before filling the questionnaire, the purpose of the study was explained. Verbal consent was obtained from all students included in this study. The questionnaire includes 11 items regarding the awareness and knowledge related to CPR. The four first questions also involved the attitude of students about the application of CPR. Six hundred copies were distributed among high school students, 575 were collected giving a response rate of 96%.

Data Analysis: After completion of data collection, it was reviewed, organized, tabulated and statistically analyzed using Statistical Package for Social Sciences (SPSS).

RESULTS

Out of the 575 high school students, 70% and 30 % were males and females respectively. Mean age was 16.5 ± 2 . Fifty eight percent of high school students did not have any previous information about CPR. The proper CPR information was approximately the same for females and males: it was 58.1% and 58% for females and males' students respectively (Figure 1). Surprisingly, 35 % of male and female high school students have some training about CPR. Regarding the willingness to perform CPR on others, 67% of both males and females high school students would be willing to perform CPR on a member of their families or relatives (Table 1). Interestingly enough, only one third of males and females students (33%) would be willing to perform CPR on strangers. The response to willingness to perform CPR on strangers was lower in females than males' students; it was 42% and 24% for male and female students respectively.

DISCUSSION

Cardiopulmonary resuscitation is an important life saving first aid skill, practiced throughout the world. In this study we examine the community awareness

about CPR among secondary schools students in Riyadh. As for lack of knowledge about CPR among students, in this study 58% did not have any previous information about CPR. This finding was higher and disagree with previous studies findings. For example, in Saudis study 31% of university students have lack of knowledge about CPR [8] and in another study the lack of knowledge was less than 50 % among college students [7]. The possible explanation for these differences could be that the previous studies were mostly conducted with medical and health professional students who are expected to know about it, as they are frequently facing life threatening situations and the knowledge of CPR is definitely required. The positive attitude towards CPR in this study was similar to previous findings indicating the important role of CPR in saving patients life. Regarding the willingness to perform CPR on others, 67% of both males and females high school students would be willing to perform CPR on a member of their families or relatives. However, only 33% of males and females students would be willing to perform CPR on strangers. This finding of almost one third of Saudis students is higher than 15 % of Americans who would be willing to perform CPR on strangers [11]. However, it seems the possible reasons behind low percentages of people willingness to perform CPR could be that people have worried about their insufficient practical skills [7] or they concern about transmission disease in particular when using mouth-to-mouth ventilation [11]. This indicted that may be other factor rather than relationship may affect willingness of students to perform CPR. Consequently, this may require educational efforts among people in the community and investigations of new approaches of CPR. These educational efforts may be essential to come up with a program, in which CPR can be taught to as many people as possible, to expose the citizens to CPR at a young age to raise awareness, explain the importance of CPR and stimulate the interest of people who live in the community. In addition, CPR training may integrated into school curriculum as several societies and organizations have recommended that basic life support skills should be taught in schools [12-16]. Limitation of this study includes the small sample size and the fact it was limited to high schools in one city. Larger sample size and inclusion of multiples high schools from various cities both governmental and privet schools would offer more generalized information.

In conclusion, it was found that the overall attitude is positive towards CPR. However, the proper CPR information among high school students was insufficient.

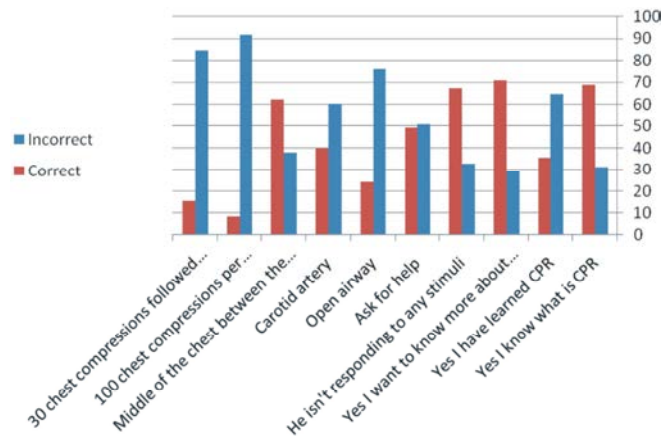


Fig. 1: CPR Knowledge and willingness to perform it among Males and Females secondary students

Table 1: Students attitude regarding application of CPR

| Question asked | Male (Yes) | Male (No) | Female (Yes) | Female (No) |
|--|------------|-----------|--------------|-------------|
| Do you think would you perform mouth-to-mouth rescue breathing on: | | | | |
| A- a member of your family? | 67.08% | 32.92% | 66.67% | 33.33 |
| B- a stranger? | 41.65% | 58.35% | 23.56% | 76.44% |

Since CPR plays vital role in saving people life more studies are needed to examine the CPR information among people who live in the community and suggest a strategies to introduce CPR training into schools' curriculum.

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