

Knowledge and Attitudes towards Cardiopulmonary Resuscitation among Parents in Abha, Saudi Arabia

M Zakirulla^{1*}, Razan M Faden², Abdulrahman S Al Hadhir³, Aedh H Alqahtani³,
Rushdiyah H Abu-Hawi⁴, Atheer M Asiri⁴, Norah Ali Alqahtani⁴, Roaa Ali Alqahtani⁴,
Osama Y Alfaifi⁴, Abdulrahman H Al-Salem⁴, Mahmoud J Almalki⁴, Hussain S Al-
Zabin⁵, Dareen A Alshehri³, Shomokh A Abu Msmar³, Abdulrahman M Otudi⁴

¹Assistant Professor, Department of Pediatric Dentistry & Orthodontic Sciences, College of Dentistry,
King Khalid University, Abha, Saudi Arabia

²General Dentist, Ministry of Health, Qurayyat, Al-Jouf, Saudi Arabia

³General Dentist, Ministry of Health, Aseer, Saudi Arabia

⁴Intern, College of Dentistry, King Khalid University, Abha, Saudi Arabia

⁵General Dentist, Ministry of Health, Khamis Mushayt, Saudi Arabia

ABSTRACT

Background: Sudden cardiac arrest is really a leading public health problem on earth. Early identification of cardiac arrest within an unconscious patient, early service of emergency medical services, earlier cardiopulmonary resuscitation (CPR), and early defibrillation certainly are important actions for the treatment of cardiac arrest having an improved survival rate.

Objectives: To assess the knowledge and attitudes towards cardiopulmonary resuscitation (CPR) among the parents of children who attended our Department of Pediatric Dentistry, College of Dentistry, King Khalid University Abha, Saudi Arabia.

Materials and Methods: A cross-sectional study was carried out on the sample size of 250 parents (mother or father) to estimate the level of knowledge and attitude towards cardiopulmonary resuscitation (CPR) in College of Dentistry King Khalid University. A self-administered questionnaire was prepared in both Arabic and English languages and distributed to all the participants. All the data were collected and analyzed by using SPSS version 21.

Results: The majority of participants, 132 (64%) were said that they have knowledge about cardiopulmonary resuscitation. 35% agreed that they had ever encountered a situation that required the use of CPR. Half of the participants agreed that they have sufficient knowledge of CR. Very a smaller number of participants 15% agreed that performing CPR is simply a waste of manpower and time. 80% of participants agreed guidelines for CPR can improve the quality of healthcare.

Conclusion: The results of this study demonstrate good CPR knowledge among educated parents. However, participants reported overwhelmingly positive attitudes and eagerness towards the implementation of CPR training. We suggest that there must be CPR courses given to parents in future.

Key words: Attitude, Cardiopulmonary resuscitation, Knowledge, Parents, Saudi Arabia

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Corresponding author: M Zakirulla
e-mail ✉: drzak786@gmail.com
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INTRODUCTION

Cardiopulmonary resuscitation (CPR) is a life-saving method that will be helpful in several emergencies. Cardiac arrest will be a condition characterized by an

abrupt failure of the heart to transfer blood to your body, resulting in loss of respiration and consciousness. Cardiopulmonary resuscitation is essential in states of suffocation, electrocution injuries, cardiovascular attacks, or any circumstance when a person's breathing or heartbeat has stopped. This needs a combination of rescue inhaling and exhaling and chest compressions, which preserve oxygenated blood flowing to your brain and other vital organs until finally, more definitive medical

therapy can restore a normal heart rhythm. When the heart halts, the lack of oxygenated bloodstream can cause permanent brain damage in only a few minutes. Death will occur within ten minutes [1]. Time is essential when assisting an individual in cardiopulmonary arrest. The quicker CPR is definitely carried out, the greater the chance of successful resuscitation. CPR has improved over the last twenty years, the survival with good neurologic outcomes continues to be low (17% after in-hospital cardiac arrest, 2% after out-of-hospital arrest) [2]. Several types of research have demonstrated that 3%-12% of all acute myocardial infarction (MI) cases produce ventricular fibrillation (VF) leading to SCD, so when many are found to be dead, the number is considered to be higher [3]. Nevertheless, ventricular fibrillation (VF) as grounds behind out-of-hospital cardiac arrest will be reduced, and VF is still the most frequent underlying ventricular arrhythmia in SCDs [4,5]. Techniques of CPR are directed at sustaining the oxygenated blood flow to vital organs, specifically the brain, which will become very sensitive to the lack of oxygen that can trigger permanent brain injury in a matter of a short while, and death may happen in less than 10 minutes. Every minute after starting sudden cardiac arrest will reduce the benefit of resuscitation by around 10% [6]. One more research carried out in 753 subjects locally of the Al-Khobar city about awareness and knowledge of pediatric CPR disclosed that 365 female subjects and 247 male participants failed to carry out chest compression and rescue breaths [7]. The training in infant CPR specifically to the parents ought to be given prime significance. A report in 2005 has shown the expiry of 2230 infants younger than one year with sudden infant death syndrome, which made it the third top cause of death in infants. Related research executed by Dammam University Hospital in April 2013 concerning the awareness and knowledge of pediatric cardiopulmonary resuscitation in the community of Al-Khobar town also concluded an inadequate public consciousness and understanding of CPR [8]. This study aimed at estimating the level of knowledge and attitudes towards cardiopulmonary resuscitation (CPR) among the parents of children who attended our Department of Pediatric Dentistry, College of Dentistry King Khalid University Abha, Saudi Arabia.

MATERIALS AND METHODS

A cross-sectional study was carried out on the sample size of 206 parents (mother or father) to estimate the

level of knowledge and attitude towards cardiopulmonary resuscitation (CPR) in College of Dentistry King Khalid University. Informed consent was obtained from the participants before start of the research. The sampling method included in the study is simple random sampling method. Ethical letter for carrying out the study was acquired from the Institutional review board (IRB/KKUCOD/ETH/2021-22/020) of the College of Dentistry, King Khalid University.

The questions were designed and were circulated among parents of children attending pediatric dental clinics. The questionnaire consists of two parts: The first portion included the questions related to the demographic information of participants, such as age, gender, educational qualification.. The other part of the questionnaire comprised of 10 questions with 'yes' and 'no' pattern, and the multiple-choice question was prepared, and piloting was done.

A self-administered structured questionnaire was developed and tested among a convenience sample of 20 parents. They were interviewed to gain feedback on the overall acceptability of the survey in terms of length and language clarity; according to their feedback, the questions were corrected. Face validity was also assessed before the start of the study. Both descriptive and analytical statistical measurements were used to describe the main variables by SPSS 18 (IBM Corporation, Armonk, New York, USA) software.

RESULTS

A total of 206 parents responded to the questionnaire. 56% of study subjects were of 25-30 years, 34% were of 31-35 years, and 10% were >36 years (Table 1).

The majority of participants, 132 (64%) were said that they have knowledge about cardiopulmonary resuscitation. 35% agreed that they had ever encountered a situation that required the use of CPR.

Half of the participants agreed that they have sufficient knowledge of CR. Very a smaller number of participants 15% agreed that performing CPR is simply a waste of manpower and time.

80% of participants agreed guidelines for CPR can improve the quality of healthcare. Responses of participants were given in Figure 1.

Table 1: Distribution of study sample according to age.

Age	n (206)	%
25-30 years	115	56
31-35 years	70	34
>36 years	21	10

N=Number; %=Percentage

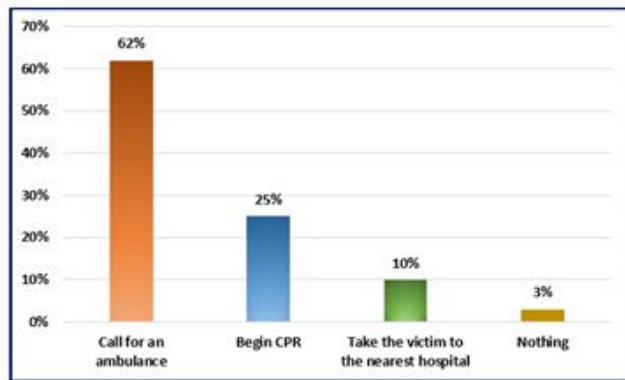


Figure 1: Participants response for what they will do first when encounter a situation that requires CPR.

DISCUSSION

Cardiopulmonary resuscitation is an essential life-saving skill that should be knowledgeable to all people of the community. Almost all individuals, 132 (64%), were told they will have an knowing of cardiopulmonary resuscitation. 28% agreed they had ever encountered a situation that needed using CPR., which shows the important role that health-related organizations perform in training the general public about CPR. A comparable lack of data was within study in Sweden, which showed that students scored around 67% immediately after training or more to 61% at 6 months [9]. A research in the united kingdom decided with this individuals' view that increasing the level of training within the local community might enhance the proportion of patients with out-of-hospital cardiac arrest (OHCA) who obtain CPR prior to the arrival of the EMS [10]. Inside our study, 35% of the parents said they went to the training course of CPR. European Resuscitation Guidelines and another research from Norway emphasized the importance of practical teaching in CPR to encourage the participants' self-efficacy and raises willingness to intervene in a genuine OHCA situation [11]. This should be considered when making such courses for laypersons in Saudi Arabia, and focus will be directed at the practical facet of education.

In this research, 80% of people agreed guidelines for CPR could increase the quality of healthcare. Universities were the main source of BLS training and followed by schools, specific training facilities, and information. Today, more CPR training center programs are open by medical organizations in Saudi Arabia, because the Saudi Red Crescent Authority, to the common population for free to enhance the knowledge and skills of the general public in the application of this life-saving skill. Study from the UK showed that education had an immediate effect on the attitude of individuals toward CPR [12]. Another study conducted on nurses experienced also demonstrated that their way of thinking was improved after education [13]. In Saudi research, it turned out found out that perspective toward CPR could possibly be improved by regular educational programs [14]. One more Saudi research performed on students recorded that their overall mind-set was positive toward CPR [15].

On the other hand, the vast majority of pare usuallynts in this study wanted to know CPR (88.5%), and this is a good, good attitude between them. Also, this result is in compliance with another research performed in New Zealand, which observed nearly exactly the same outcomes (73.5%) and with a research that was carried out in Riyadh, 2008, which demonstrated better mind-sets (90%). These results reveal the significance of a CPR teaching program for parents and for public which will help to them. Among the research done in Riyadh, which demonstrates that about half of the students think that the multimedia such as television and social media is the greatest way to raise the attention of people. Earlier contact with cardiac arrest cases considerably motivated the CPR understanding of health professionals. The teachers, school learners, public, and all laypersons from the community should also be educated for BLS and medical so that they can respond to a crisis correctly. Short refresher courses can end up being arranged for those who previously took a course formerly to spare the funding and guarantee revision. Chaudhary et al. exhibited how hands-on coaching improved the info and techniques by evaluating pre-test assessment and post-workshop scores [16]. Limitations of this research are the small sample size and the fact that it had been limited by parents attending to one university. Larger sample dimensions and inclusion of varied universities, both governmental and also private, might provide more info. More research is necessary to review CPR and medical knowledge locally. Further analysis can be had a need to evaluate the strengths and weaknesses of CPR training programs.

CONCLUSION

In conclusion, this study demonstrates good CPR knowledge among educated parents. However, participants reported overwhelmingly positive attitudes and eagerness towards the implementation of CPR training. We suggest that there must be CPR courses given to parents in future.

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Nil.

CONFLICTS OF INTEREST

There are no conflicts of interest.

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