

Basic Cardiopulmonary Resuscitation Training for Caregivers of Dialysis Patients

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Background

Chronic renal failure is a terminal disease whose incidence increases with age. Out of 1000 people, 20 require dialysis treatment. This patient population is chronically ill, and suffers from additional comorbidities that increase the risk of developing a range of complications. Various studies have shown that cardiac arrest causes 60% of mortality incidence in dialysis patients. Unknown cause of cardiac arrest accounted for 47% of all cardiac deaths; another 13% were attributed to arrhythmia. Initiations of basic cardiopulmonary resuscitation at an early stage in case of cardiac arrest outside the hospital can double the survival rates of the patient; hence, training caregivers to perform cardiopulmonary resuscitation increases the likelihood of patient survival.



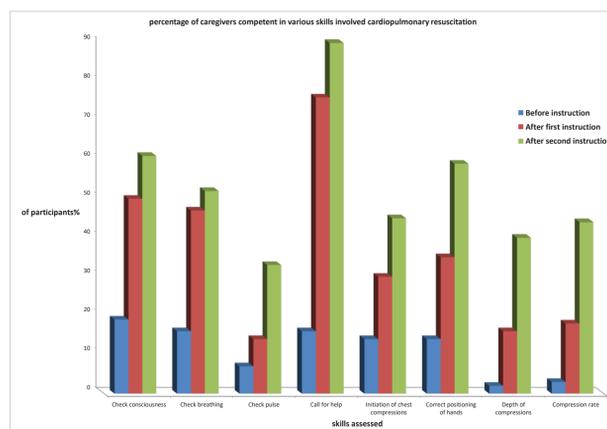
Objectives

Training caregivers of dialysis patients to initiate and perform early basic cardiopulmonary resuscitation, in order to increase chances of patient survival in cardiac arrest. Empowering caregivers by providing information and training, in order to increase caregiver confidence and decrease anxiety.

Methods

All caregivers in the dialysis unit were invited to participate in the education program. Semi structured interviews with the participants were held, in which demographic details and previous knowledge of cardiopulmonary resuscitation was assessed. Learning sessions were planned according to the patients' dialysis treatment schedules and caregivers' previous knowledge. The learning sessions were held in small groups in a room adjacent to the dialysis unit, where each participant had opportunity to practice on a resuscitation doll specifically designed for cardiopulmonary resuscitation training, with feedback from the instructor. The sessions lasted approximately 30 minutes and included explanations and demonstration on the resuscitation doll. Evaluation of the learning session was assessed by oral questioning and observation of the skills learnt. In order to review and practice the skills learnt, an additional education program was held after six months.

Table 1



Results

48 caregivers agreed to participate in the study. The participants were culturally diverse, from various religions in northern Israel, including Moslems, Christians, Jews and Druze. 36 were women. Most had completed 12 years of schooling.

In the interviews before the learning sessions, 22% of the participants reported that they had basic knowledge of cardiopulmonary resuscitation, but none had received theoretical or practical review of the material since the initial learning.

The number of participants competent in skills necessary for cardiopulmonary resuscitation increased after the first learning session, and increased further after the second session. (Table 1)

After the learning sessions improvements were seen in all evaluation parameters. The most significant improvement was seen in "calling for help". Only 16% of participants knew and did this before the learning sessions; this parameter increased to 76% after the first session, and to 90% after the second session.

In addition we saw a significant increase in the number of participants competent in performing good quality chest compressions, assessed by correct positioning of the hands, depth of compression and compression rate.

All participants expressed increased confidence in recognizing cardiac arrest and willingness to initiate cardiopulmonary resuscitation.

Conclusions

Training caregivers of dialysis patients in basic cardiopulmonary resuscitation improved their knowledge and skills, and increased willingness to initiate and perform cardiopulmonary resuscitation when faced with cases of cardiac arrest. Education empowers caregivers, provides a feeling of confidence and lowers anxiety. Our findings highlight the importance of ongoing education to caregivers in basic cardiopulmonary resuscitation.