



KNOWLEDGE REGARDING CARDIO PULMONARY RESUSCITATION AMONG NURSES AND THEIR SOCIO DEMOGRAPHIC CORRELATES: A CROSS SECTIONAL STUDY

Nursing

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ABSTRACT

Cardio-pulmonary Resuscitation (CPR) is an important medical procedure which is needed for individuals who face sudden cardiac arrest. A cross sectional study was conducted to assess the knowledge of the nurses (n=70) regarding CPR. Study was conducted at health centres under Dubai Health Authority. After obtaining ethical clearance and written informed consent from study subjects; the researcher personally went to the workstation of the study subjects and got the questionnaire filled by the nurses who were recruited using non probability sampling techniques. The results revealed that the mean $\pm$ SD of the overall total scores was 11.45 ± 2.67 . There was no association between the knowledge scores of the respondents and 'age' ($p=0.823$) and 'gender' ($p=0.239$). However, there was a statistically significant association between the knowledge scores and the year of experience of the respondents ($p=0.013$). The knowledge of the nurses was found to be average, thus suggesting a need for improving current nursing practices.

KEYWORDS

Cardio-pulmonary resuscitation, Knowledge, Nurses, Dubai

INTRODUCTION

Nurses are an integral part of the healthcare system and are perceived to be knowledgeable in providing institutional care to the patients. Cardio-pulmonary Resuscitation (CPR) is an important medical procedure which is needed for individuals who face sudden cardiac arrest. It is a combination of rescue breathing and chest compressions which is delivered to the victims who are thought to be in cardiac arrest. In-hospital cardiac arrest carries a poor prognosis. Any delay in activating the hospital resuscitation team due to multiple factors may jeopardize survival. Nursing staff often works at multiple sites and a sometimes lack in confidence and knowledge may contribute to delayed activation of the resuscitation team.

Sudden cardiac arrest (SCA) is a medical emergency. If not treated immediately, it causes sudden cardiac death. With fast and appropriate medical care, survival is possible. SCA is classified as in-hospital and out-of-hospital. Cardiopulmonary resuscitation (CPR) is an evolving lifesaving technique of modern medicine that comprises a series of lifesaving actions that improve the survival rates following SCAs. In earlier days, CPR training was meant only for health care professionals. Later, it was noticed that many of these events occurred outside the hospital setting and that early CPR need to be performed by the bystanders who witnessed the event. Hence, CPR is said to be a skill for all people. Quality of life is also found to be better for victims who immediately receive bystander CPR even in the absence of professional assistance. Studies have shown that immediate CPR after collapse due to ventricular fibrillation doubles or even triples the chances of survival. In contrast, survival chances decrease by 7%–10% for every min CPR is delayed.

Being important members of the healthcare team, nurses are deemed to possess the basic skills and expertise which are needed to perform CPR. It is documented that a timely performed CPR can largely prevent sudden death and it is hence considered to be an important medical procedure. Many times, the doctor may not be present near the patient and hence the nurses are expected to provide this emergency care. To perform the procedure in a meticulous manner, the nurses should be knowledgeable and they should have expertise in the procedure. Contrary to their roles, studies from different countries have reported a poor knowledge among the nurses regarding CPR.

Materials and methods

A cross sectional study was conducted to evaluate the knowledge of the nurses regarding CPR. Study was conducted at health centres under Dubai Health Authority. The subjects were the nurses who were working in various departments. They either had a Diploma or a Bachelor's degree in Nursing. Inclusion and exclusion criteria considered as all nurses who were on duty during the study period were enrolled. The ones on leave were excluded from the study. A self-designed questionnaire was used in the study. The questionnaire had 21 questions. This questionnaire was developed by the researchers in consultation with an expert in pharmacoepidemiology. The face and content validity was carried out through discussion among the

researchers and the experts. After obtaining ethical clearance and informed consent from study subjects; the researcher personally went to the workstation of the study subjects and got the questionnaire filled by the nurses. Adequate time (nearly 30 minutes) was given to each respondent for filling the questionnaire. The filled questionnaires were collected, the data were entered in a Microsoft Excel spreadsheet and they were analyzed as per the study objectives. The correct answers were given a score of '1' and wrong answers were given a score of '0', thus making the total possible score as '21'. The SPSS version 21 was used to carry out the statistical analysis. Appropriate statistical test was used to compare the mean scores with the respondent's demographic variables.

Results

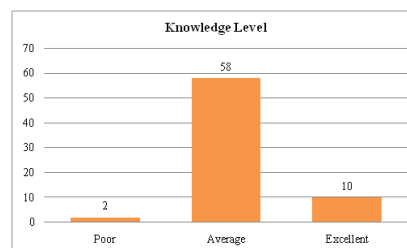
Socio demographic data

Demographic details of the respondents: 70 of them filled the questionnaire and all of subjects were females. A high percentage (84.29%; n=59) of them belonged to the age group of 30-35 years and the mean $\pm$ SD age of the respondents was 22.07 ± 2.30 years. The duration of experience of the respondents varied and the mean $\pm$ SD duration of experience was 11.45 ± 2.67 month.

Knowledge regarding CPR among nurses

The mean $\pm$ SD of the overall total scores was 11.45 ± 2.67 . There was no association between the knowledge scores of the respondents and 'age' ($p=0.823$) and 'duration of experience' ($p=0.239$). However, there was a statistically significant association between the knowledge scores and the area of work of the respondents ($p=0.013$).

Figure 1: Bar diagram showing level of knowledge among subjects (n=70)



DISCUSSION

The present study evaluated the knowledge of nurses towards CPR (a technique that needs to be mastered by any nurse) in health care teaching centres in Dubai. In general, the knowledge was found to be good, as was suggested by a mean $\pm$ SD total score of 11.45 ± 2.67 ; the maximum possible total score being 21. The findings showed a majority of subjects have average percentage of knowledge among the respondents. Nurses take care of the patients when the doctor is not present in the ward and also in the community settings, the nurses have to play a major role in the emergency handling of the patients. Thus, CPR becomes a fundamental requirement of any nurse. In general, the

knowledge scores of the nurses were found to be low. Only very few nurses could answer the questions like the 'CPR ratio of an adult', the 'CPR ratio of an infant', etc. Our findings were similar to the findings from few other countries as well. A study from Bahrain (Marsooq, 2009) had documented a poor knowledge among the nurses regarding CPR. It was also found that the ones with less qualification and experience had poor knowledge.

Another study from the Hainan province of China (Gayath, 2007) evaluated the community nurses knowledge on CPR and found them lacking in the essential knowledge. The authors also found the nurses from the rural areas to possess a still lower knowledge. However, our study was conducted only in limited number of subjects and hence cannot be compared with the findings of this study.

The results of this study need to be discussed with the in-service educators and appropriate training in the vital areas has to be instituted for the practicing nurses.

Recommendations

The study results revealed an average level of knowledge among majority of nurses working in health centres; however it will be beneficial for the faculty if the training program must continue in a regular basis instead of keeping it into a two year limited period. If the mock drill sessions, training programs and provision of instructional modules on a regular and mandatory basis it will be effective in upgrading knowledge, skill, attitude and practice of nurses and concerned staff along with an overall upliftment of health centres.

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