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Effectiveness of planned teaching program on knowledge regarding cardio pulmonary resuscitation among first year nursing students

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Abstract

Introduction: Incidence of cardiac arrest is increasing tremendously worldwide including India. Approximately 4280 out of every one lakh people die every year from sudden cardiac arrest in India alone. Early bystander cardiopulmonary resuscitation (CPR) is essential for survival from out-of-hospital cardiac arrest. Young people are potentially important bystander CPR providers, as basic life support (BLS) training can be distributed widely. Therefore, this study is an attempt to train first year nursing students regarding Cardio Pulmonary Resuscitation (CPR) using planned teaching programme.

Methods and Materials: This quasi experimental study using one group pretest post-test research design was conducted at MM College of Nursing, Mullana, Ambala, India, using a convenient sample size of 81. Data was collected using self structured questionnaire. Planned teaching programme on CPR was administered in the form of theory based classes, hands on demonstrations followed by return demonstrations. Post test was administered after 15 days of demonstration.

Results: Data Analysis was done using descriptive and inferential statistics. Mean score of study participants for pretest was found to be 7.07 ± 2.12 with a mean percentage of 35.3% which was significantly improved to 14.9 ± 3.25 with a mean percentage of 74.5 % at $p < 0.001$ for posttest score. No Association was found between levels of knowledge of study participants with selected demographic variables.

Conclusion: Based on the findings of the study, it is concluded that planned teaching programme was effective in improving the knowledge of study participants regarding Cardio Pulmonary Resuscitation. CPR must be taught to the youngsters in order to develop and strengthen the skills of saving the lives of people.

Keywords: Cardio Pulmonary Resuscitation, Planned Teaching Programme, Nursing Students

Introduction

Understanding sudden cardiac arrest and acting immediately is the need of the hour to save lives effectively as cardiac diseases are most prevalent worldwide including India. According to American Heart Association, in year 2016 out-of-hospital cardiac arrest accounts for more than 350,000 and the overall bystander CPR rate was 46.1% whereas in-hospital cardiac arrest accounts for more than 209,000 with 24.8% survival rate [1]. Cardio Pulmonary Arrest is the life threatening condition and the common emergency that is caused by sudden cessation of circulation leading to the catastrophic events and eventually death. If identified at the right time, a loss of life and organ damage both can be prevented. Indian data shows that sudden cardiac death accounts to 10.3% of overall mortality [2]. As nurses are the first line of contact with patients and most of the time is the first one to observe the danger signs of the patients, it is necessary for them to be equipped with the necessary skills, so that right action can be performed immediately at the needed time. Nursing students from their first year of professional course attend clinicals, exposing them to patients and hospital environment, therefore from the beginning onwards they need to have the skills necessary to take prompt action whenever wherever required.

Hence, this study was conducted with the aim to evaluate the effectiveness of planned teaching program on Cardio Pulmonary Resuscitation among first year B Sc nursing students.

Nursing students involve first year students in selected nursing college who had not received any formal training regarding CPR previously.

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As first year students do not have pharmacology as well as advanced nursing procedures in their curriculum, main component dealt under CPR was Basic Life Support.

Methods and Materials

This quantitative quasi experimental, one group pretest post-test research study was conducted from January 2016 to March 2016 at MM College of Nursing, Mullana, Ambala, India. The ethical approval was taken from the institute ethics committee prior to the study. Total 95 nursing students were selected using convenient sampling technique but 81 completed the study (14 were absent either during theory or demonstration classes or on the day of post-test). The tools used for the data collection consisted of 2 parts. Part I was subject data sheet containing four items i.e. age, sex, religion, and the previous information regarding CPR. Part II included a 20 item self-structured questionnaire related to CPR. The questionnaire was designed according to AHA (American Heart Association) 2015 guidelines on CPR. Majority of the questions were skill based closed ended true- false questions. To avoid guess work a third option i.e. don't know was also added. The content validity of the tool was established by 9 nursing experts and reliability coefficient was calculated to be 0.79. Informed consent was taken from the study participants and were asked to fill the questionnaire. There after planned teaching program on CPR was administered in the form of 4 theory based classes (for all students altogether) followed by 4 sessions of hands on demonstrations (in 4 groups). Theory

classes were taken with the help of power point slides using lecture cum discussion as teaching method. For demonstration CPR mannequin was used, study participants were divided into 4 groups (20+20+20+21) followed by return demonstration by them. Post test was administered after 15 days of the demonstration. Data was analyzed with SPSS version 20 using descriptive and inferential statistics.

Results

Demographic characteristics of study participants show that majority (78%) were between 17 to 19 yrs of age, 83% were female, and most of them (74%) were from Hindu religion. 90 % of the study participants did not had any previous information about the CPR. Majority of the study participants (96.3%) had poor level of knowledge in pretest whereas in post-test majority (61.8%) of study participants had good level of knowledge as depicted in Table 1. The mean pre-test knowledge score was found to be 7.07±2.12 (Mean Percentage=35.4%). The mean post test score was found to be 14.9±3.25 (Mean Percentage= 74.5%). The mean score improved significantly from pre test (7.07±2.12) to post test (14.9±3.25) with a p value < .001 as calculated by paired t test (Table 2). There was no association found between levels of knowledge of study participants with selected demographic variables such as age, sex and previous information about CPR.

Table1: Frequency and percentage showing the knowledge level in pre-test and post test of study participants regarding CPR, n=81

Level of Knowledge	Pre test		Post test	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Poor	78	96.3	6	7.4
Average	3	3.7	25	30.9
Good	0	0	50	61.8

Table 2: Range, Mean, Standard Deviation, Mean percentage and t value of pre-test and post-test knowledge scores of study participants regarding CPR. n=81

Knowledge Score	Range	Mean	SD	Mean %	t value	P value
Pre test	1-11	7.07	2.12	35.3	19.47	.001*
Post test	6-20	14.9	3.25	74.5		

Minimum: 0
 Maximum: 20
 *Significant (p value <0.05)

Discussion

The difference between pre-test and post-test knowledge scores of study participants on CPR was found to be very highly significant. The planned teaching program on cardio pulmonary resuscitation was found to be effective in improving knowledge of the CPR in nursing students. The study findings are in the line with H N Ravindra [3], Prafulla A. Salunkhe et.al [4] and Ratha K et.al [5] findings that planned teaching programme is an effective strategy in improving knowledge of the students and other personnel regarding CPR.

Conclusion

It was therefore concluded that planned teaching programme is effective in improving the knowledge of first year nursing students regarding CPR. The planned teaching programme can be implemented for students at the entry level to nursing as to make them efficient in handling the suspected cardiac

arrest in and out of the hospital wherever whenever required.

Recommendations

Nursing administration should implement the planned teaching programme on CPR at the entry level of students in college as well as at job as it is cost effective as well as less time consuming. The long term effectiveness of planned teaching programme as well as student's retention on CPR can be evaluated in further time intervals of 1 month, 3 months and 6 months.

Conflict of interest: None to declare

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References

1. AHA. *Statistical Update*.
<http://cpr.heart.org/AHA/ECC/CPR>
ECC/General/UCM_477263_Cardiac-Arrest-
Statistics.jsp (accessed 02-02-2017). And
2. Parakh N. Sudden cardiac death. *Journal of the Practice of Cardiovascular Sciences*. 2015; 1:1(2):113.
3. Ravindra HN. Effectiveness of Planned Teaching Programme on Cardiopulmonary Resuscitation (CPR) Technique among Degree Students. *International Journal of Nursing Education*. 2013; 1:5(2):160.
4. Salunkhe PA, Dias RA. Effectiveness of demonstration regarding cardiopulmonary resuscitation on knowledge and practice among policemen. *International Journal of Science and Research (IJSR)*. 2014; 3(5):213-9.
5. Ratha K, Panda S, Pradhan R. Evaluate the Effectiveness of Planned Teaching Programme regarding Basic Life Support among B.Sc Nursing Students at Selected Nursing College. *IOSR Journal of Nursing and Health Science (IOSR-JNHS)*. 2014; 3(1):16-19.