A study to assess the knowledge regarding competency programme on cardio-pulmonary resuscitation of adult among the para medical students of selected paramedical college of, Hapur (U.P.)

Nursing

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ABSTRACT

BACKGROUND OF THE STUDY : Once life begins instincts begin to work and also to preserve it. For life by itself strives to live and not to die, and that is the normal natural process called life. Meanwhile there are many challenges too. But instincts again seek and find ways and means of preserving that precious little life¹. Sudden cardiac arrest (SCA) is a leading cause of death among adults in the United States. Cardio pulmonary resuscitation (CPR) dramatically increases the chance of survival for a victim suffering from sudden cardiac arrest.²

2. OBJECTIVES : I. To assess the knowledge of the subjects regarding cardio pulmonary resuscitation among the Para medical students. II. To find out the association knowledge scores with their selected demographical variables of the subject among the Para medical students.

MATERIAL METHODS : The study was conducted on 50 paramedical students at Rama Paramedical College, Pilkhuwa, Hapur. Univariate Descriptive research approach was adopted in this study. Non-experimental descriptive design, simple random sampling (table method) are used. The instrument used for data collection was structured knowledge questionnaire.

RESULT: Study concludes that majority of paramedical students having 27(54%) poor knowledge, 23 (46%) average knowledge and none of the adequate knowledge. There was association between socio-demographical data variable with knowledge age, name of the course was significant and gender, last qualification, year of course, is any one health care provider, is any family member /relatives /friends suffered cardiac arrest , previous knowledge about CPR and source of knowledge about CPR was no significant.

CONCLUSION: Study conclude that Rama paramedical college paramedical students having poor and average knowledge regarding the CPR.

KEYWORDS

Knowledge, Assess, Competency Program me Cardiac Pulmonary Resuscitation, Paramedical Students ,Paramedical College

INTRODUCTION :

"Take some time to learn first aid and CPR. It save lives and it works." Bobby Sherman

"I hope you know CPR because you are going to take jessie's breath away." Georgia Cates

Life is a most precious one of each individual saving life of person is noble thing in the entire world, now a day most of death occurs due to the improper management of patient, especially in the emergency situation. CPR involves physical interventions to create artificial circulation through rhythmic pressing on the patient's chest to manually pump blood through the heart, called chest compressions, and usually also involves the rescuer exhaling into the patient (or using a device to simulate this) to inflate the lungs and pass oxygen in to the blood, called artificial respiration. CPR is unlikely to restart the heart; its main purpose is to maintain a flow of oxygenated blood to the brain and the heart, thereby delaying tissue death and extending the brief window of opportunity for a successful resuscitation without permanent brain damage.³

CPR is a combination chest compressions and breaths, and provides critical blood flow and oxygen to the heart and brain. If CPR is started within 3 to 5 minutes of collapse, it increases a victim's chance of survival and reduces the chance of permanent damage.⁴

OBJECTIVES :

- I. To assess the knowledge of the subjects regarding cardio pulmonary resuscitation among the Para medical students.
- II. To find out the association knowledge scores with their selected demographical variables of the subject among the Para medical students.

REVIEW OF LITERATURE: A study to investigate Para Medical students competency in order to establish baseline data for developing Para Medical students competency based clinical education for Para Medical students was conducted by the Department of Para medical, Catholic University of Diego. A survey of 1,453 Para Medical students from 21 nursing schools was conducted using a self administered questionnaire. The mean score of the clinical nursing competency was 2.93. The items perceived as insufficient competency were physical examination and observation & monitoring in data collection, cardiopulmonary resuscitation, psycho-social care, etc. This study will contribute to developing a nursing competency based on clinical education for RN-BSN students who have various education needs and clinical backgrounds.⁵

MATERIAL METHODS:

The study was conducted on 50 paramedical students who have age in 17-23 years, who have willing and able to follow instruction at Rama paramedical college, pilkhuwa, Hapur. Univariate descriptive approach was considered. Non-experimental descriptive design, simple random sampling (table method) are used. The instrument used for data collection was structured knowledge questionnaire. Before data collection the content validity of the tools were established by consulting with 8 expert. A structured performa and observation checklist were used for data collection. The structured performa considered of two parts: part-I considered of items(8) on demographic characteristics of the sample and part-II (27) consisted of items regarding knowledge about CPR. An observation checklist was used for assessment knowledge about CPR. To ensure the content validity of the tools, it was submitted in 8 experts. The reliability of knowledge questionnaire was found to be +1; thus the tools were found to be highly reliable.

Ethical clearance from the research committee and administrative approval from Rama paramedical college was taken before conducting the study. Data was collected in Rama paramedical college from 8th April to 11th April 2017. The data were analysed using descriptive and inferential statistics.

Obtained score/Maximum score $\times 100$

-Poor knowledge -50% and below

-Average knowledge 51-75%

-Adequate knowledge-- 75-100%

The data analysis was done by using descriptive and inferential statistics.

RESULT: The data in demographical depicted that most of students 29 (58%) were of age group 17 – 19 year and 21(42%) were of age group 20 – 22 year. Most of the Para Medical Students 31(62 %) were male and 19 (38%) were female. Most Para Medical Students 3(06%) D.M.L.T, 12 (24%) B.M.L.T, 8(16%) B.P.T, 7(14%) Diploma in OT, 9 (18%) BSc Radiology and 11(22%) BSc Cardiology. Last qualification of Para Medical Students 49(98%) was 12th passed and 1 (2%) was diploma. Most of Para Medical Students was 1st years 30 (60%) and 2nd year 20(40%). Family health care provider 9(18%) yes and 41(82%) no. family /relative suffered from cardiac arrest in 5(10%) yes and 45(90%) no. Previous knowledge about the CPR 20(40%) Yes and 30 (60%) No. Most of Paramedical students source of knowledge about CPR is 15(30%) from parents relatives, any teacher, 8(16%) From news paper, internet, 15(30%) Awareness campaign and 12 (24%) Any health personnel.

Table 1 Findings related to knowledge of para medical students regarding CPR N=50

Mean	Median	Mode	Range	Standard deviation
13.1	13	18.41	19-5 =14	3.79

Table 2. Frequency and percentage distribution of knowledge of Para Medical Students regarding CPR N=50

Level of knowledge	Frequency	(%)
Poor knowledge (0-13)	27	54
Average knowledge (14-21)	23	46
Adequate knowledge (22-27)	0	0

Data presented in table 2, showed that in maximum Para Medical Students i.e. 23 (46%) were having average knowledge where as 27 (54%) having knowledge poor average, none of the Para Medical Students was having adequate knowledge regarding CPR.

Fig.1 Bar graph showing percentage distribution of the paramedical students according to level of knowledge regarding CPR

DISCUSSION:

The researcher in the study assessed the knowledge of Para Medical Students regarding CPR.

The finding in the present study revealed that the Para Medical Students not had adequate knowledge regarding CPR as evident from mean knowledge score 13.1.

In this basis the researcher to prepare the structured teaching programme regarding the CPR and administer the structured teaching programme knowledge regarding CPR so, increase the knowledge regarding the CPR.

The finding of the study is consistent with of previous researches in which knowledge level of Para Medical Students was not found to be adequate regarding CPR.

SUMMARY: CPR involves physical interventions to create artificial circulation through rhythmic pressing on the patient's chest to manually pump blood through the heart, called chest compressions, and usually also involves the rescuer exhaling into the patient (or using a device to simulate this) to inflate the lungs and pass oxygen in to the blood, called artificial respiration. CPR is unlikely to restart the heart; its main purpose is to maintain a flow of oxygenated blood to the brain and the heart, thereby delaying tissue death and extending the brief window of opportunity for a successful resuscitation without permanent brain damage.

The investigator found Para Medical Students have lack of knowledge regarding CPR techniques and they were neglecting prevention of cardiac arrest protocols.

The purpose of this study was to assess the knowledge regarding CPR technique among Para Medical Students working in selected Para Medical College of Hapur.

CONCLUSION:

This study was used to assess the knowledge regarding competency programme on cardio pulmonary resuscitation of adult among the paramedical students of selected paramedical college. Among 50 sample 23(46%) had gained average knowledge score, 27(54%) had gained poor knowledge score regarding knowledge of CPR.

IMPLICATION

Nursing administration

- Nursing administration should formulate policies that include all Para Medical Students to be active in Cardiac arrest control programme.
- Nursing administered should concentrate on workshop and in service education of nurses, who play a vital role in presentation and treatment of cardiac arrest.
- There should be provision of reading material like journal, manuals, text book etc. in the department for updating the knowledge of nursing personal.

Nursing education

- There should be provision for in service education to update the knowledge of nursing personnel keeping in view the current trends & practices of CPR.
- Different types of educational material on CPR such as self-instruction material, pamphlets, audio-video tapes and graphic aids may be prepared for the client's use.

Nursing practice

- Cardiac arrest is one of the greatest challenges the health care delivery system is facing. The Para Medical Students plays a vital role to prevent cardiac arrest. Equipping them with the right knowledge and attitude will lead them to adopt an cardiac arrest control police.
- Since education is one of the powerful mean for developing awareness and improving the level of knowledge, and clinical teaching beang an integral part of the nursing practice, it should be developed systematically and scientifically based on the need of the target population. Nursing personnel should plan teaching program for Para Medical Students to enhance their knowledge regarding CPR.
- The study finding revealed that most of the Para Medical Students were not having adequate knowledge. This indicated that tere is greatest scope for nurse's clinical teaching activity in this area by the clinical instructors.

Nursing research

- No profession can exist without research. So research should be directed for exploring and updating the student and nursing personnel. It will help to discover the appropriate method and media for effective teaching regarding CPR.
- The nursing personnel should conduct more of experimental studies on the learning needs of various health personnel to update the learning method and material and material on regular basis.
- The finding of the study can be used to further justify the needs for education of the people in the awareness and preventive aspects of health.

RECOMMENDATION:

On the basis of finding of the study, following recommendation are made:

- A similar study can be replicated on a large sample; thereby finding can be generalized for a larger population.
- An experimental study can be done to see the assess the knowledge program to increase the level of knowledge regarding CPR.
- A comparative study can be done to see the difference in the knowledge of Para Medical Students in the studying based.
- This study can be done to assess the practice and attitude towards CPR among Para Medical Students.
- A study can be conducted to find out the knowledge and attitude of other health care providers regarding CPR.
- An knowledge assessing study can be done with a control group to compare gain in knowledge and change in attitude

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