Effectiveness of Simulated Demonstration regarding Defibrillation Technique on Knowledge and Practices among Nurses

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Abstract: *Study was aimed to assess Effectiveness of demonstration regarding defibrillation technique on knowledge and practices among nurses* **Objectives:** *To assess the knowledge and practice score of staff nurses regarding defibrillation technique before and after Demonstration. To determine the association between knowledge & practice score of staff nurses with selected demographic variable.* **Methodology:** *Quantitative research approach and one group pre-test and post-test design was used. Non-probability convenient sampling method was applied to select the 50 samples.* **Findings**-*majority 30 (60%) of the subjects were between the age group of 26 to 30 years and Majority i.e. 47(94 %) were females. While33 (66%) of the subjects were professionally qualified up to General nursing and midwifery Maximum i.e. 16 (32%) of the subjects have less than one years of ICU work experience, Maximum i.e. 34 (68%) of subjects had previous information acquired regarding defibrillation from other sources like books internet ET. Findings evident that the mean knowledge score of the nurses in pre test was 14.88 and SD 1.57, whereas mean knowledge score in post test was 45.7 and SD 14.6. The mean practice score of the staff nurses in pre test was 11.88 and SD 4.11 , whereas mean practice score in post test was 21.1 and SD 2.88.The paired t test showed significant increase in the knowledge and practice score of the staff nurses after demonstration of defibrillation technique. Conclusion The results indicated positive response to the demonstration which was found to be really useful to them. This motivated staff nurses to take prompt decisions, perform defibrillation with confidence and save many lives of in-hospitals cardiac arrest victims.*

Keywords: Demonstration, Defibrillation, Knowledge, Practices, Nurses.

1. Introduction

Nurses are accountable for the decision to perform the controlled act and for its performance. Nurses must consider the client's needs and best interests, and determine whether the client's condition warrants the performance of the procedure. They must have the knowledge, practices and judgment to perform the procedure safely, effectively and ethically. Nurses need to ensure that the practice environment has the appropriate resources to perform the procedure safely and manage reasonably expected outcomes. (For example, a nurse must consider that defibrillation is only one component in the continuum of care required during a cardiac arrest.) And so they need demonstration to improve their practices and hence confidence to act in emergency.

God has given one miracle organ that is heart.The heart is known as the epicenter of all your emotions, new ideas and inspirations. Heart starts working as soon as 21st day of conception in mother's womb and goes on till the last breathes of life. It keeps pumping the blood to the cells of human body, spending sleepless nights and days. On an average the heart beats 100000 times a day, pumping almost 7500 liters of blood through its chambers to the rest of the body and then back to the heart. Over 70 years that adds up to more than 2.5 billion heart beats.

However, even the importance of heart is countless. A healthy heart can be result of few factors, which includes good genes, good physical activities, right meal and food choices etc. While nothing can be done with one genes, they are god gifted and beyond the control of human being. But, about others they can be easily controlled by normal life style and healthy food practices. According to the world health organization nearly 17.5 million lives are lost due to the heart disease worldwide, and in the race. The Indian are again running fast as American and others. According to world health organization, estimates about 60% of the total worlds cardiac patient will be Indians, American are also leading in the list issued by them [1].

Learning is the addition of new knowledge and experience Interpreted in the light of past knowledge and experience. Teaching and learning is an integral part of nursing. Nurses have the responsibility to educate patients related to various aspects and keep themselves updated. Various teaching strategies are used to increase knowledge, such as lecturing, Demonstration, discussion and self-education. These methods of self-education has an advantage over the others as the learner can educate himself at his own pace and it also stresses on rereading [2]

A heart attack, or myocardial infarction, begins when a portion of the heart muscle suddenly loses its blood supply due to an obstruction of the coronary arteries. The obstruction is typically due to coronary arteriosclerosis. If the obstruction persists for more than a few minutes, the affected cardiac muscle tissue will begin to die this is known as a heart attack. Total circulation of heart is stopped at the time of cardiac arrest so we use advanced life support that is defibrillation and cardio version. Immediate management of heart attack and, myocardial infarction is defibrillation and cardio version. Cardiac arrhythmia is any of a large and heterogeneous group of conditions in which there is

abnormal <u>electrical activity</u> in the <u>heart</u>. The heart beat may be too fast or too slow, and may be regular or irregular. Some arrhythmias are life-threaten condition that can result in cardiac arrest and sudden death. Palpitation will occur due to cardiac arrhythmias. Arrhythmias mainly a slow rhythm that is less than 60 beats/min, is called Bradycardia and heart rate faster than 100 beats/minute is called tachycardia. Other arrhythmias is atrial fibrillation, atrial flutter, ventricular tachycardia, ventricular fibrillation, supra ventricular tachycardia. Main management of cardiac arrhythmias is cardio version and defibrillation [3].

2. Background of the study

Eikeland Husebø Et al in their study have stated, although nurses must be able to respond quickly and effectively to cardiac arrest, numerous studies have demonstrated poor performance. Simulation is a promising learning tool for resuscitation team training[4].

Simulation-based environments offer a promising solution in nursing education for training the coordination necessary in resuscitation teams as they give the opportunity to practice the complex interplay of verbal and non-verbal communication modes that would otherwise not be possible.

3. Need for the study

It was estimated that nearly 30 million Indians had cardiovascular disease in 2003, which represented a prevalence of 8–10% among urban Indians. This has a huge public health impact with a significant loss in potentially useful life-years due to premature, unexpected cardiovascular deaths. This was estimated to be 9.2 million years in 2000 and expected, to rise 3 to nearly 18 million years by 2030. Whether ethnicity can affect incidence of sudden death is also not well documented in these populations. The prevalence rate of atrial fibrillation was 3.6 per thousand (males 3.6, females 3.6) and ventricular premature beat was 12.1 per thousand (males 7.3, females 15.6). For atrial premature beat, complete and incomplete right bundle branch blocks, sinus arrhythmia, first degree atrioventricular block and delta wave, the prevalence rates were 4.0, 7.0, 4.6, 2.7, 2.4 and 1.3 per thousand respectively[5].

Today, the nursing team is efficient in not only giving bedside nursing care, but also in instilling emotional balance and giving encouragement to the patients. Modern nursing has developed as a result of good understanding, supportive care and essential teaching, thus promoting good interpersonal relationships. Nurse is the active member of health care team, the nurse's personality, integrity, initiative and knowledge are significant factors in enabling her to manage emergency situation. Her ability to think logically, observe and report correctly as well as acting promptly is personal qualifications upon which the doctors and patient must depend [6].

There is growing interest in developing countries to enable defibrillation to be administered by registered staff nurse while waiting for the authorized practitioner. Nearly half of all deaths from cardiovascular disease are sudden and unexpected. Most sudden cardiac deaths occur before hospital admission. The delay from cardiopulmonary arrest to defibrillation is a significant independent predictor of survival. Two minutes after the arrest around two thirds of victims have rhythms amenable to defibrillation, but this percentage decreases rapidly with time. Obviously, it is imperative to minimize the delay from calling the emergency medical practitioner to their arrival at the arrest scene. However, some delay is inevitable. Therefore, interest has grown in complementary strategies whereby defibrillation can be administered by registered nurse [7].

4. Review of Literature

Review of literature is important to gain better understanding and the insight necessary to develop a broad conceptual framework in which a problem can be examined. It helps in the formulation of a specific problem, acquaints the investigators to what is already known in relation to the problem under review, provides a basis for assessing the feasibility of a research problem and gives information on the research approach [8].

4.1 Review of Literature Related to the Knowledge and Practices

Salunkhe P.A concluded the positive response to the demonstration and teaching was found really useful to policeman, which will help them to take prompt decisions, perform cardiopulmonary resuscitation and save many lives of out-of-hospitals cardiac arrest victims [9]. Kadam,A.*(2014*) found that Structured education programme was highly effective to improve the knowledge score and to improve the attitude score of subjects/ caregiver towards colostomy care of patient [10]. Anjum,S.(2014)conducted study to assess knowledge of contraceptives methods and appraisal of health education among married women and concluded After the health education married women knowledge was improved to 100% about female sterilization followed by condom 99%, skin implants 86%, oral pills 85% and emergency contraceptives 85%.Sociodemographic variable were significantly associated with existing knowledge and level of married women specially age at marriage, age at first child, occupation,, income ,education [11],[12]. Babu, R. L. (2014) the findings of the study concluded that care takers had inadequate knowledge regarding non-curative care of terminally ill cancer patients. The planned education programme on non-curative care of terminally ill cancer patients was highly effective in improving the knowledge of care takers regarding non-curative care of terminally ill cancer patients [13]. Shinde, M.(2014) concluded that demonstration regarding feeding of hemiplegic patient among caregivers was effective in increasing the skill of the caregivers regarding feeding of hemiplegic patient [14]. Deshmukh, M(2014) Budhgaonkar (2014) concluded that the structured education was effective on knowledge and practice of staff nurses regarding venous access device care[15][16] Gulavani A (2014) concluded that re was no significant association found between occupational stress, job satisfaction and age, sex, professional education, year of experience. Specific measure

to reduce stress of nurse associated with frequently occurring causes and measures to improve job satisfaction associated with compensation and independence will be helpful to improve performance of the nurses [17].

Nursing care is one of the major health care services. It contributes a lot to the patient healing process. Even though there are competent physicians present in a given health institution, it would not be adequate without appropriate nursing care. Nurses have 24 hour contact with patients as well as being near to them. Thus, as they are the frontline, the patients expect more from them and nurses should also fulfill patients' needs with competence and a compassionate approach. If the patient is denied appropriate care the healing process is obviously compromised. On this line, assessing the satisfaction of patients with nursing care is crucial in order to identify the area of dissatisfaction and at the same time improve the nursing services. Till now most of our Indian nurses not aware of the importance of patients' satisfaction and its role. Even many Hospitals are lacking in providing satisfactory services [18].

Stewart A suggests that nurses on medical wards are enthusiastic about advanced cardiac life support and already have some basic practical knowledge. Appropriate training (and retraining) of nursing staff should improve the outcome of resuscitation efforts on medical wards [19]. The study results showed that, there was not a satisfactory level of knowledge, there is a urgent need for regular assessment and updating of resuscitation skills, knowledge and practice amongst nurses, particularly those working in the ward areas [20].

It reported that there was surprisingly increased survival rate to 89% in early defibrillation given by nurses compared with survival rate of 56% in delayed defibrillation given from doctors [21]. A simulation study showed that in a simulation setting charging of the defibrillator before rhythm analysis significantly reduced hands-off time compared with the ERC 2005 and ERC 2010 guidelines [22].

4.2 Review of Literature Related To Demonstration

Hamilton R concluded as poor knowledge and skill retention following cardiopulmonary resuscitation training for nursing and medical staff has been documented over the past 20 years. Cardiopulmonary resuscitation training is mandatory for nursing staff and is important as nurses often discover the victims of in-hospital cardiac arrest. Remedial training must be provided as often as required [23].

Seethala, et al found that Despite the fact that quality of CPR has been shown to correlate with improved patient outcomes, conventional training methods are often insufficient in enabling healthcare providers to deliver high-quality resuscitation care. Use of simulation methods during resuscitation training can increase subsequent resuscitation quality. Additionally, automated feedback during resuscitation has been shown to improve CPR performance. Focused debriefing after resuscitation can improve CPR quality and increase initial resuscitation success. Finally, minimizing pauses in chest compressions by adopting cardio

cerebral resuscitation (CCR) protocols can lead to better patient survival. Implementing these measures on a more widespread basis can improve resuscitation care and ultimately decrease patient mortality. They summarized that By adopting techniques such as simulation, automated feedback, training refreshers, debriefing and CCR, the quality of resuscitation performance can be increased. Future work needs to demonstrate that improved resuscitation performance correlates with decreased mortality [24].

4.3 Statement of the Problem

"To assess the effectiveness of simulated demonstration on defibrillation technique on knowledge and practices among staff nurses working in Intensive care unit in selected hospitals of metropolitan city."

4.4 Objectives of the Study

1. To assess the knowledge and practicesscore of staff nurses regarding defibrillation technique before Demonstration.
2. To evaluate the effectiveness on knowledge & practice score of staff nurses in relation to defibrillation technique after demonstration.
3. To determine the association between knowledge & practice score of staff nurses with selected demographic variable.

4.5 Operational Definitions

1) **Assess: -**In this study assess referred to checking the level of knowledge and practices of staff nurses on selected aspects of defibrillation before and after simulated demonstration...
2) **Effectiveness: -**In this study, the meaning of effectiveness is change in the mean score of knowledge and practices in relation to simulated demonstration of defibrillation which is determined by the significant difference between pre-test and post-test knowledge scores.
3) **Simulated**:-In this study, the meaning of simulated is creating artificial situation for demonstration of defibrillation.
4) **Demonstration: -**In this study, it refers to systematically organised teaching strategy of half hour duration on defibrillation technique in three phases that is preparation phase, performance phase and follow up phase.
5) **Defibrillation:-**In this study, Defibrillation refers to one of the emergency procedure .It is achieved by delivering a strong electric current to the surface of a patient's chest wall in cardiac arrest condition .
6) **Knowledge:-**In this study "Knowledge" refers to the correct response from the respondent on defibrillation using structured knowledge questionnaire.
7) The structured knowledge questionnaire will include following aspects
   - Anatomy and physiology of the heart
   - ECG and assessment of shockable arrhythmias.
   - defibrillator and defibrillation

- Nurse's role

8) **Practices:-** In this study "Practice" refers to the actual application of knowledge and practice of defibrillation which is assessed using observational checklist.

9) **Staff nurse**:- In this study, the meaning of Staff nurses is the qualified and authorized and registered nurses in India, working in various intensive care units.

4.6 Assumption

The study assumes that
1. Staff nurses may have some knowledge regarding defibrillation.
2. Staff nurses may have some practices related to defibrillation.
3. Improvement in knowledge may improve practices.
4. Simulated demonstration is an effective method in demonstrating defibrillation.

4.7 Delimitation

1. The study is limited to the Staff Nurses who are working in Intensive care unit (ICU).
2. The study is limited to the Staff Nurses who are working in selected government hospital.

4.8 Hypothesis

Ho: There will be no significant difference between the means of pre-test and post test knowledge score & practices after simulated demonstration ondefibrillation among staff nurses working in Intensive care unit.

H1: There will be a significant difference between the means ofpre-test and post test knowledge score& practices after simulated demonstration on Defibrillation among staff nurses working in Intensive care unit.

4.9 Variables

1. **Independent variable**:
   According to the investigator, independent variable is simulated demonstration on defibrillation.
2. **Dependent variables**:
   According to the investigator, dependent variable is Knowledge & practices of staff nurses regarding defibrillations who are working in intensive care unit.

5. Ethical Consideration

Ethics have always been an integral part nursing and nursing research. A good research problem conforms to moral ethical and legal standards of scientific inquiry. Ethical implications in research: following ethical implications are done while conducting research:--
1. Permission of ethical committee is obtained to conduct research.
2. Permission of Dean /Medical superintendent of each Government hospital are obtained to conduct research.
3. Permission of matron of each Government hospital is obtained to conduct research.

4. Informed consent of the subject /sample is taken prior to the study.
5. Wellbeing of the subject is protected in the study.
6. Confidentiality of data is maintained and also privacy of the subject is maintained.
7. Self-respect and dignity of the subject is maintained during the study.
8. Freedom to withdraw from the study any time was assured to the subject.

6. Research Methodology

In this study, a pre-experimental approach is used.

6.1 Research Design

In this study the research design selected for the study was one group pre-test post-test design. This design helped the investigator to assess the knowledge score and practice among staff nurses before and after the demonstration by the investigator.

- **The Independent variable**
  The independent variable in this study was simulated demonstration of defibrillation technique.
- **The Dependent variable**
  The dependent variable in this study was the knowledge score and practice of staff nurses after demonstration of defibrillation technique.

6.2 Setting of the Study

A setting is the physical location and condition in which data collection is done by the investigator. The investigator conducted this study at selected adult intensive care unit (ICU) / side room of various Hospitals in Metropolitan city.

6.3 Population

In this study the population consisted of staff nurses working in adult ICUs.

6.4 Sample

In this study, the staff nurses who were willing to participate and fulfilling the inclusion criteria were taken for study.

6.5 Sampling Technique

In this study the investigator had used non probability convenient sampling technique.

6.6 Sample Size

In this study the sample included were 50 staff nurses working at adult ICUs of various Hospitals in Metropolitan city. Staff nurses were selected using the criteria for sample selection.
Inclusion criteria
1. Staff nurses who were present during data collection
2. Staff nurses who were willing to participate.
3. Staff nurses who were working in adult intensive care unit.

Exclusion criteria
1. Staff nurses who were working in neonate or paediatric intensive care unit.
2. Staff nurses who were working in areas other than intensive care unit.
3. Staff nurses who were not able to cooperate throughout the period of the study.

6.7 Delimitation

This study is delimited to staff nurses working in various adult intensive care units in selected hospital of metropolitan city.

6.8 Plan for Data Analysis (Statistical Method)

The data was analyzed in terms of the objectives of study using descriptive and inferential statistics. Consolidation and organization of data in master sheet.
- Frequency and percentage for analysis of demographic characteristics of the respondents.
- Calculation of Mean and standard deviation for pretest and post test knowledge scores and practices regarding defibrillation technique
- The paired 't' test for observation of significant level of difference in pre and post test knowledge score regarding selected aspects of defibrillation technique
- The calculated data will be presented in the form of graphs and tables.
- The Anova test for finding the association between selected demographic variables and knowledge score and practices of staff nurses regarding selected aspects of defibrillation technique

7. Major Findings and Discussion

7.1 Demographic data of the subjects

According to age, it was noted that 4 (8%) of the subjects were from both younger group i.e. 21 to 25years and older group i.e. more than 35 years of age group, while 30 (60%) of the subjects were between the age group of 26 to 30 years and the remaining 12 (24%) of the subjects were between the age group of 31 to 35 years. According to gender, majority i.e. 47(94 %)werefemales and 3(6%) were males.According to Professional qualification, Majority 33(66%) of the subjects were professionally qualified up to General nursing and midwifery (GNM),12(24%)had done their basic BSc nursing while 16(32%) had done Post basic BSc nursing and only 3 (6%) had done their MSc nursing.

According to total work experience, 18(36%) of subjects had less than 1 year of total hospital work experience, maximum that is 24 (48%) had 1 to 5 years ofwork experience, 5 (10%) had 6to10 years and only 3 (06%) had more than 11 years of total hospital work experience.

According to their ICU work experience.16 (32%) of the subjects have less than one years of ICU work experience, 14 (28%)of the subjects have one to three years of ICU work experience , 15 (30%)of the subjects have three to five years

of ICU work experience ,while as only 5 (10%)of the subjects have more than five years of ICU work experience According to previous information acquired regarding defibrillation, maximum i.e 34(68%) of subjects had previous information acquired regarding defibrillation from other sources like books internet etc, 9(18%) had acquired previous information from seminar, 5(10%) had acquired from workshop and only 2(4%)had acquired previous information special training or information regarding defibrillation.

7.2 Assessment of the knowledge and practice of subjects regarding defibrillation

The data shows that in pre test maximum i.e. 47(94%)subjects had good knowledge score, while as 1(2%) and 2(4%)had average knowledge and good knowledge score respectively regarding defibrillation.
In pre-test, maximum37 (74%)subjects had average practice score, 8 (16%)subjects had good,3 (6%) had poor practice score and only 2 (4%)had excellent practice score regarding defibrillation before demonstration.

7.3 Effectiveness of teaching and demonstration on knowledge and practice of subjects regarding defibrillation

The data showed that before demonstration 47 (94%) had good, 2 (4%) had excellent knowledge score and only 1 (2%) had average knowledge score but none had poor knowledge score regarding defibrillation. After demonstration maximum that is 47 (94%) had excellent knowledge score and only 3 (6%)had good knowledge score while as nobody remained in poor and average knowledge score regarding defibrillation.

The data of Section wise knowledge score depicted that tabulated 't' value for n-1=49 degrees of freedom for section I, II, III, IV are 4.26, 5.55,14.89,9.037 respectively.The calculated 't' value was much higher than the tabulated values at 0.05 level of significance, so null hypothesis (H_0) was rejected. This shows that there was a significant difference in the means of pre and post test knowledge scores of the subjects. Therefore it was concluded that there was a significant difference at 0.05 levels with regard to knowledge of defibrillation among staff nurses.

The data of overall knowledge score reveled that the tabulated 't' value for n-1=49 degrees of freedom was 2.01. The calculated value was 14.41 for knowledge. The calculated 't' value was much higher than the tabulated values at 0.05 level of significance, so null hypothesis (H_0) was rejected. This shows that there was a significant difference in the means of pre and post test knowledge scores of the subjects. Therefore it was concluded that there was a significant difference at 0.05 levels with regard to knowledge of defibrillation among staff nurses, thus the null hypothesis (H_0) is rejected in case of knowledge.

The data shows that in pre-test, 38(76%) of the subjects had average, 7(14%) of them had good, 3(6%) had poor practice score regarding defibrillation technique and only 2 (4%) had

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excellent practice score regarding defibrillation technique., In post-test, 25 (50%)of them had excellent practice and 23 (46%)had good and only 2 (4%)of them had average practice about defibrillation technique. Nobody had poor practice score.

After application of paired t-test to compare pre-test and post-test knowledge scores of the subjects, t- value for phase I, II, III, are 12.47, 5.142,14.27.67 respectively at 49 degree of freedom .aThe calculated 't' value was much higher than the tabulated 't' values at 0.05 level of significance, so null hypothesis (H_0) was rejected. This shows that there was a significant difference in the means of pre and post test practice scores of the subjects. Therefore it was concluded that there was a significant difference at 0.05 levels with regard to practice of defibrillation among staff nurses, thus the null hypothesis (H_0) is rejected in case of practice.

Hence, it is strongly interpreted that the demonstration on defibrillation was effective to increase the knowledge and practice of staff nurses. It was noted that there was significance change in knowledge of various aspects (Anatomy & physiology of heart,ECG & assessment of fatal arrhythmias,Defibrillator & Defibrillation, and nurses role in defibrillation) of defibrillation among staff nurses.

Based on the finding of the study all the subjects showed an increase in the post test knowledge and practice scores. Thus it could be stated that demonstration and planned teaching programme or any other educational programs could help to enhance the knowledge and practice of defibrillation among staff nurses, this proves H_1.

7.4 An analysis of data related to association between selected variables and knowledge of subjects regarding defibrillation

In order to find the relationship between knowledge and selected demographic variables, analysis of variance (ANOVA) tests. The study shows that there was no significant association between pre-test knowledge scores to demographic variables i.e. age, gender, professional education, ICU work experience and previous information acquired regarding defibrillation as calculated p values were more than 0.05 level of significance thus it showed no significant association.

7.5 An analysis of data related to association between selected variables and practice of subjects regarding defibrillation.7

In order to find the relationship between practices and selected demographic variables, analysis of variance (ANOVA) test was applied. The study shows that there was no significant association between pre-test practice scores and selected demographic variables except only in relation to ICU work experience. Here calculated p value is 0.011, which is less than 0.05 level of significance thus it showed significant association with practice score.

Scope of the Study:
1. The staff nurses can have awareness in relation to defibrillation as per simulated demonstration given to them.
2. Staff nurses who have received demonstration will be in a better position to make decision regarding defibrillation.
3. Further researches with a larger sample, including the urban and rural hospital are recommended.

8. Nursing Implications

The findings of this study have implications for nursing practice, nursing education, nursing administration and nursing research.

Nursing Practice
- Nursing personnel working in the hospital as well as in the community can understand the importance of demonstration regarding defibrillation.
- Nurses play a key role in educating the staff nurses on defibrillation by organizing demonstration and teaching sessions and by individual educational programs.
- Nurses have to develop instructional or demonstration module to educate staff nurses.
- The use of demonstration and planned teaching information material for staff nurses to supplement verbal information, increase knowledge and practice and satisfaction among the staff nurses.

Nursing Education
This study emphasis on the enhancement of the knowledge and practices of staff nurses regarding defibrillation to prevent death among cardiac arrest patients.
- Nurse educator has to pay more attention on training of staff nurses regarding defibrillation. So that they can impart appropriate knowledge to other staff nurses group.
- More emphasis has to be placed in the regular and periodical teaching or demonstration sessions on prompt and proper technical aspects of defibrillation.
- Student Nurses can be motivated to organize demonstration and teaching programs to enhance the knowledge and practice of student nurses regarding defibrillation.
- Education is the key to the development of excellent nursing practice. With changing health care trend, nursing education must emphasize primary health care approach focusing on survival of in- hospital cardiac arrest victims rather than waiting for medical help. As the needs of society as well as profession are continuously changing latest components must be incorporated in the nursing curriculum. Nursing education must emphasize on education of staff nurses regarding defibrillation to improve their confidence.
- The education curriculum must include imparting knowledge of defibrillation. The education curriculum must include imparting the knowledge about the use of various audio visual aids and teaching strategies.
- Nursing teachers can use the result of the study as an informative illustration for the students. Nursing education should help in inculcating values and a sense of

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responsibilities in the students to educate nurses regarding defibrillation.

Nursing Administration
- Nurse administrative should plan and organize training programme for the staff nurses on defibrillation.
- Nurse administrator has to organize educational programs in the general wards, intensive care units, emergency departments and community settings.
- Nurse administrator can develop hospital policy for motivating their staff nurses for in service education.
- Necessary administrative support has to be provided to conduct inservice education, workshops in hospitals, and educational institutes with appropriate A.V Aids, mass media, posters and role plays, drama and puppet show.
- The nurse administrators have a responsibility to provide staff nurses with substantive continuing education opportunities. This will enable to update the knowledge, acquire special skills and enable to act promptly.

Nursing Research
Nursing research is an essential aspect of nursing as it uplifts the profession and develops new nursing norms and body of knowledge. Here, another research has been added to the nursing literature. Very few studies have been done on a similar basis. The research design, findings and the tool can be used as avenues for further research. A similar study can be conducted on large scale and in various settings. An in depth study on the advanced aspects of defibrillation can be conducted. The finding of the study shows that majority of the staff nurses lack in knowledge and practices aboutdefibrillation. Based on the findings the professional and student nurses can conduct further studies on various aspects of defibrillation and its importance and impacts on health, community and surroundings in order to assess the knowledge of staff nurses. The study will motivate the beginning researchers to conduct similar study in large scale and on a comparative basis it also motivates young and enthusiastic researchers to implement demonstration and teaching programme activities and see its effectiveness.

9. Conclusion

Present study focuses on the practices of staff nurses in relation to defibrillation technique. During the study it was observed that, all the subjects were very enthusiastic and interested to learn.One group pre test post test design was used to assess the effect of simulated demonstration. The results of pre test of the study reveal that there is low level of knowledge and practice scores about the defibrillation technique. In post test significant gain in knowledge and practice scores were seen. The results indicated good positive response to the demonstration and planned teaching. It was found to be eally useful to them. The subjects expressed that they were expecting more of such kind of information programs with pictures, videos, demonstration and planned teaching.

10. Limitations

1. No standardized tools were available therefore the investigator prepared a tool for the purpose of the study.
2. The questionnaire with multiple choices must have prompted the staff nurses to give responses. Hence, the possibility of getting average or good score could be a chance factor in this study, which was a limitation of the tool.
3. Random sampling technique could not be used.
4. The study was confined to a small number of subjects which limits the generalization of the study.
5. The study did not use any control group.
6. Only two domain that are knowledge and practices are considered in this study.
7. Due to small time frame paediatric intensive care unit staff nurses could not be included.
8. For data collection the availability of time was limited.

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