



A study to assess the level of knowledge about cardio version and defibrillator among B.Sc (N) final year students in Annai Veilankanni's college of nursing, perungalathur.



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Abstract: A study to assess the level of knowledge about cardio version and defibrillator among B.Sc (N) final year students in Annai Veilankanni's college of nursing, peungalathur. The research approach adopted for this study is an evaluate approach there design selected for this study was pre test and post test design. The sample size is 30 patients simple random sampling technique was used to select the respondent. A structured knowledge questionnaire was administered to assess knowledge among cardio version and defibrillator among B.Sc (N) final year students. The result findings shows that in pre test 28(93.33) had moderately adequate knowledge and only 2(6.67) had inadequate knowledge on cardio version and defibrillator where as in post test 27(97.0) had adequate knowledge and only 3(10.0) had moderately adequate knowledge on cardio version and defibrillator. There will be a significant association of level of knowledge on cardio version and defibrillator among B.Sc (N) final year students with their selected demographic variables, that the demographic variable age had shown statistically significant association with pretest level of knowledge about cardio version and defibrillator among B.Sc.(N) Final Year. Students at $p < 0.001$ level and the other demographic variables had not shown statistically significant association with pretest level of knowledge about cardio version and defibrillator among B.Sc (N) Final Year Students.

Introduction: The heart works in an endless contract-relax / contract - relax cycle. An average heart beats 1,00,000 times a day, pumping some 2000 gallons of blood through its chambers and then back to the heart. Defibrillators can be external, intravenous, or implanted, depending on the type of device used or needed. Some external units, known as automated external defibrillators (AEDs).

Defibrillation was first demonstrated in 1899 by Prevost and Batelli, two physiologists from University of Geneva, Switzerland Beck used internal paddles on either side of the heart, along with procainamide, an anti arrhythmic drug, and achieved return of normal sinus rhythm until the early 1950s,

defibrillation of the heart was possible only when the chest cavity was open during surgery. The closed-chest defibrillator device which applied an alternating current of greater than 1000 volts, conducted by means of externally applied electrodes through the chest cage to the heart, was pioneered by Dr. V. Eskin with assistance by A.Klimov in Frunze, USSR (today known as Bishkek, Kyrgyzstan) in mid 1950s.

NEED FOR THE STUDY

Global burden of disease estimated (2010), nearly a quarter (28.4%) of all deaths in India are attributed to cardiovascular disease. The age-standardized CVD death rate of 272 per 100000 populations in India is higher than the global average



of 235 per 100000 populations. Currently, there are no nationally representative surveillance data on the prevalence of CVD and the secular trends of CVD mortality in India. However, reports of 3 large prospective studies from India suggest a higher proportion of mortality attribute to CVD (30%-42%) and an age-standardized mortality rate (255-525 per 100000 populations in men and 225-299 per 100000 populations in women). The years of life lost attributable to CVD in India increased by 59% from 1990 to 2010 (23.2 million to 37 million). This projections estimate that these countries will account for above 37 million deaths due to CVD in 2020.

OBJECTIVE

- ❖ To assess the pre test level of knowledge regarding cardio version and defibrillation among final year B.sc nursing students.
- ❖ To evaluate the effectiveness of pretest level of knowledge regarding cardio version and defibrillation after administering self instructional module.
- ❖ To evaluate the effectiveness of knowledge regarding cardio version and defibrillation after administering self instructional module.
- ❖ To assess the post test level of knowledge regarding cardio version and defibrillation among final year B.sc nursing students.
- ❖ To evaluate the effectiveness of post test level of knowledge regarding cardio version and defibrillation after administering self instructional module.
- ❖ To compare pre test and post test score of knowledge regarding cardio version and defibrillation among final year B.sc nursing students.
- ❖ To find out the association between pre test knowledge score regarding cardio version and defibrillation with the selected demographic variables.

OPERATIONAL DEFINITION

1. **Cardio version:** Medical procedure that restores a normal heart rhythm in people with certain types of

abnormal heartbeats (arrhythmias).

2. **Defibrillator:** Is an electronic device that applies an electric shock to restore the rhythm of a fibrillating heart.

3. **Knowledge:** The fact or condition of knowing something with familiarity gained through experience or association.

4. **Evaluate:** To difference in the knowledge and practice regarding cardio version and defibrillation.

ASSUMPTION

- ❖ Final year students having adequate knowledge regarding cardio version and defibrillator
- ❖ Final year students are practical aware about cardio version and defibrillator

DELIMITATION

- ❖ Students who cleared all the subjects in previous year.
- ❖ Students who were not available at the time of data collection.
- ❖ Students who were are not willing to participate in the study.

METHODOLOGY

Research approach: Quantitative research approach

Research design: A one group pre-test, post-test, pre experimental design.

Setting of the study: Annai Veilankanni's college of nursing.

Sample: Students of B.Sc (nursing) final year in Annai Veilankanni's college of nursing.

Sample size: 30 students

Sampling technique: Convenient sampling technique method was adopted to select the samples for the present study based on sampling criteria.

Criteria for sample collection:

Inclusion criteria

- ❖ Available at the time of data collection
- ❖ Willing to participate in the study
- ❖ Cleared all the subjects in previous year



Exclusion Criteria

- ❖ Not available at the time of data collection.
- ❖ Not willing to participate in the study
- ❖ Not able to cooperate throughout the period of study.

VARIABLES

Research variable: cardio version and defibrillator

Demographic variables: Demographic variables includes age, gender, religion, educational status, occupation, type of family, marital status, family income per month and habits.

Source of information

- ❖ Whether you complete any certified course related to cardiovascular system.
- ❖ Previous exposure to assisting defibrillator, previous exposure to cardiac unit.
- ❖ Whether you are hostel/days scholar, Have you interest to study cardiovascular system.

Description of the tool

Section-A: It consists of items seeking information regarding socio-demographic characteristics of students such as age, religion, family history of cardiac disease, previous exposure, socio-economic status.

Section-B: Structured questionnaire method is used to assess the knowledge about cardio version and defibrillation among B.Sc (nursing) final year students

SCORE INTERPRETATION:

INTERPRETATION SCORE

Inadequate	<10
Moderate Adequate	<20
Adequate	20-30

DATA COLLECTION PROCEDURE

A formal permission was obtained from the Annai Veilankanni’s college of nursing, with regarded to study a total of students were selected as sampling for study. The investigator first introduces our self to the participant and obtained verbal consent for the study.

Prior permission will be obtained from the

concerned authorities. The purpose of the study will be explained to the participants. A pre-test will be conducted by using structured open ended questionnaire to assess the existing knowledge regarding cardio version and defibrillation among students then self instructional module will be administered, after 30 minutes post test will be conducted with the same questionnaires.

PLAN FOR DATA ANALYSIS

Descriptive and Inferential statistics will be used.

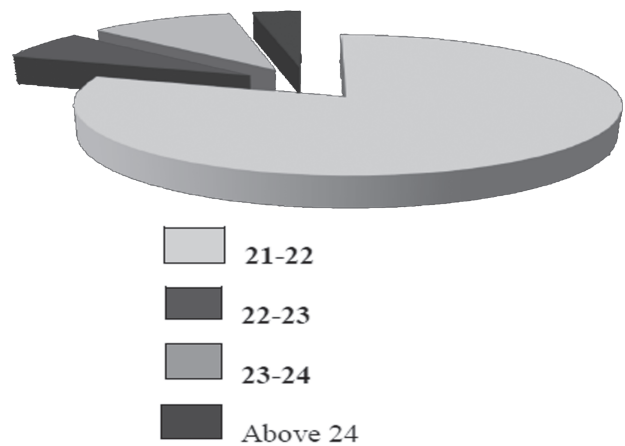


Table 1: Frequency and percentage distribution of demographic variables of B.Sc.(N) Final Year Students.

Table 2: Frequency and percentage distribution of pretest and post test level of knowledge about cardio version and defibrillator among b.sc.(n) final year students.

	Fre	Per	Fre	Per
Inadequate (1-10)	2	6.67	0	0
Moderate				
adequate (11-20)	28	93.33	3	10.0
Adequate (21-30)	0	0	27	90.0

Table-3: Comparison of pretest and post test knowledge scores about cardio version and defibrillator among B.Sc (N) Final Year Students.

Variable	Mean	S.D	Mean	Paired ‘t’ Improvement Score	Value



Pretest 14.63 2.31 11.36

$t = 22.554$

$p = 0.0001$

S^{***}

Post Test 26.0 2.65

DISCUSSION: The study shows that maximum 24(80%) were in the age group of 21-22, 24(80%) were Hindus, 28(93.33%) belongs to middle class, 17(56.67%) were in the hostel and 13(43.33%) in the days scholar, 30(100%) were interest to study cardiovascular system and 21(70%) received information through teaching personal.

The study findings shows that in the pre test, 28(93.33%) had moderately adequate knowledge and 2(6.67%) had adequate knowledge and where as in the post test, 28(90%) had adequate knowledge and 3(10%) had moderately adequate knowledge about cardio version and defibrillator among B.Sc(N) final year students The study findings depicts that the pretest mean score of knowledge was 14.63 with standard deviation 2.31 and post test mean score was 26.0 with standard deviation 2.65. The mean knowledge improvement score was 11.36.

The calculated paired 't' test value of $t = 22.554$ was found to be statistically highly significant at $p < 0.001$ level. This clearly infers that the self instructional module administered to B.Sc.(N) Final Year Students was found to be effective which improved their level of knowledge about cardio version and defibrillator in the post test.

CONCLUSION: The study aimed to assess the level of knowledge about cardio version and defibrillator among B.Sc (N) final year students. The study concluded that, The analysis revealed that majority 27(90%) had adequate knowledge and only 3(10%) had moderately adequate knowledge on cardio version and defibrillator.

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