Effectiveness of Self - Structured Teaching Program on Cardiopulmonary Resuscitation in Terms of Knowledge among BSc. Nursing 3rd Year Students

Henry Massey[1], Kumar Utkarsh[2], Jetendra Singh[3]

[1]P. G. Tutor, Arogyam Nursing College, Roorkee, Haridwar

[2]B.Sc Nursing 4rth Year, Arogyam Nursing College, Roorkee, Haridwar

[3]Principal cum Professor, Arogyam Nursing College, Roorkee, Haridwar

Abstract: *Cardio - vascular diseases is the major cause of death. If we see the global data 17.9 million people die each year due to cardio - vascular diseases. The major group of disorders of heart and blood vessels including coronary artery disease, Cerebro - vascular disease, Rheumatic heart disease and other conditions. The major aim of the study was to assess the effectiveness of self - structured teaching program on Cardiopulmonary Resuscitation in terms of knowledge among BSc. Nursing 3rd year students of Arogyam Nursing College at Roorkee. A quantitative research approach with pre - experimental (one group pretest – posttest research design) was used in the study. The target population of the study were 30 B. sc nursing 2nd year students of Arogyam Nursing College Roorkee. The mean posttest knowledge score value of B. Sc Nursing 2nd year students were significantly higher than mean pretest. Calculated 't' value (- 4.39) is less than table value (2.05) at p<0.05 level of significance. Therefore it can be said that self - structured teaching program regarding CPR is effective in enhancing knowledge level of B. Sc. Nursing 2nd year students.*

Keywords: Cardiopulmonary Resuscitation, B. Sc Nursing Students, Effectiveness & Knowledge

1. Introduction

Cardio - vascular diseases is the major cause of death. If we see the global data 17.9 million people die each year due to cardio - vascular diseases. The major group of disorders of heart and blood vessels including coronary artery disease, Cerebro - vascular disease, Rheumatic heart disease and other conditions. Other common causes of sudden death include heart attack, electrical shock, drowning, choking, suffocation, trauma, drug reactions, and allergic reactions. The best chance of ensuring their survival is to give them emergency (BLS) treatment known as cardiopulmonary resuscitation (CPR). CPR is a procedure which is the vital part of basic life support. Resuscitation is the medical term which means 'to revive'. CPR procedure helps the patient to stay alive by providing manual breathing and chest compressions.10% of cases (adult) are out of hospital cardiac arrest (OHCA). Resuscitation is the body ischemia reperfusion in cardiac arrest. When the blood circulation stops, it affects the multiple organ system including brain and heart in most cases, defibrillation and other advance life support is not available then it is the right time to revive the victim by providing basic life support (CPR) and it should be provided by educated by standards. The by standard should have the complete knowledge regarding CPR and have skills to follow the steps of CPR or simple enough to remember and recall in highly stressful moments. Correctly performed CPR by the rescuers impact positive on the survival of cardiac arrest victim.

2. Material And Methods

A quantitative research approach with pre - experimental (one group pretest – posttest research design) was used in the study. The target population of the study were B. sc nursing 2nd year students of Arogyam Nursing College Roorkee. Non - probability purposive sampling was used to for sampling. Samples size for the study were 20 B. sc Nursing 2nd year students. Tools used for data collection were demographic variables & self - structured questionnaire. Content validity of the tools were done by **5** experts from Nursing Professionals. Research tool was provided to the B. Sc. Nursing 2nd year students and 15 minutes was given to answer the question. The sample was cooperative and no default was occurred during the collection of data. After data collection, data was organized simply to understand, represented in table form, summarized and analyzed, presented in bar diagrams and pie diagrams.

3. Results

Section A

Demographic data -
Age of the B. Sc. Nursing 2nd year students: In this study, Demographic data details according to age groups depicts that 66.66% students are in between 18 - 20 years and 33.33% of students are in between 21 - 23 years of age group.

Gender: In this study, percentagewise distribution of students according to gender conclude that 66.33% are females where as 36.66% are males.

Educational status of mother: In this study, percentagewise distribution of students according to the educational status of mother 33.33% are illiterate 20% had primary education 26.66% had passed High school 26.66% had passed Intermediate and 13.33% are graduated mothers.

Educational status of father: In this study, percentagewise distribution of students according to the educational status of

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father 0% are illiterate 6.66% had primary education 16.66% had passed High school 43.33% had passed Intermediate and 33.33% are graduated fathers.

Occupational status of mother: Percentagewise distribution of students according to the occupational status of mother, 20% are government employee, 6.66% are self - employed and 73.33% are un - employed (housewife).

Occupational status of father: Percentagewise distribution of students according to the occupational status of father 36.66% are government employee, 23.33% are self - employed and 40 % are un - employed (farmer).

Previous knowledge regarding C. P. R. among B. Sc. Nursing 2nd year students: In this study, percentagewise

distribution of B. Sc. nursing 2nd year students according to the previous knowledge 36.66% of student had previous knowledge regarding C. P. R. and 13.33% are not having knowledge regarding C. P. R.

Source of information on C. P. R: In this study, percentagewise distribution of source of information on C. P. R. from books 50%, lecture 42.30% and friends 7.69%.

Socioeconomic status: In this study, percentagewise distribution of socioeconomic status 13.33% belongs to lower class, 80% belongs to middle class and 2% belongs to highest class.

Section B

Table 1: Showing the frequency percentage of pre - test and post - test knowledge of B. Sc. Nursing 2nd year students.

Knowledge Level	Scores	Frequency		Frequency Percentage	
		Pre - Test	Post - Test	Pre - Test	Post - Test
Poor	0 - 15	1	0	3.33%	0%
Average	16 - 30	21	9	70%	30%
Good	31 - 45	8	21	26.66%	70%

Data shows that 3.33% samples scored below 15 (poor knowledge), 70% of samples scored within 16 - 30 (average knowledge) and 26.66% of samples scored more than 31 (good knowledge) shows that majority of the samples had average knowledge in pre - test. In post - test, 0% of samples had poor knowledge, 30% of samples had average knowledge

and 70% had good knowledge regarding CPR. It implies that the students have good knowledge about Cardiopulmonary Resuscitation.

Section C

Table 2: Comparison & Effectiveness of Structured teaching program on C. P. R in terms of enhancing the knowledge level.

Knowledge Level Score	Mean	SD	Df	Calculated 't' Value	Tabulated 't' Value	Level of Significance
Pre - test	25.93	5.60	29	- 4.39	2.05	Significant
Post - test	32.30	5.67				

Comparison of pre - test and post - test knowledge regarding Cardiopulmonary Resuscitation among B. Sc. Nursing 2nd year students:

Result of the study reveals that level of knowledge score is higher than pre - test mean level of knowledge. After the self - structured teaching program on CPR, Mean of knowledge level is 32.30, SD=5.67. In comparison to pre - test score mean 25.93, SD was 5.60 was higher.

The statistical paired t' test for overall level of knowledge score is found to be - 4.39 which is less than the table value (2.00) at $p<0.05$ level of significance. Therefore, it can be said that the self - structured teaching program was found effective in increasing the level of knowledge among the students of B. Sc. nursing 2nd year students.

Section D

Table 2: Showing association of pretest score with socio - demographic variable.

S No.	Socio - Demographic Variables	Poor	Average	Good	Chi - Square Value	Level Of Association
1	*Age*				$\chi 2=3.85$, df=2, **p>0.05 (NS)**	Non - significant
	18 - 20 years	0	16	4		
	21 - 23 years	1	5	4		
2	*Gender*				$\chi 2=2.21$, df=2, **p>0.05 (NS)**	Non - significant
	Males	0	8	2		
	Females	1	13	6		
3	*Educational status of Mother*				$\chi 2=7.58$, df=8, **p>0.05 (NS)**	Non - significant
	Illiterate	1	2	1		
	Primary	0	5	1		
	High - school	0	5	3		
	Intermediate	0	6	2		
	Graduate	0	3	1		
4	*Educational Status of father*				$\chi 2=2.51$, df=6, **p>0.05 (NS)**	Non - significant
	Illiterate	0	0	0		
	Primary	0	1	1		

	High - school	0	4	1		
	Intermediate	1	8	4		
	Graduate	0	8	2		
5	*Occupational status of mother*				χ2=25.90, df=30, **p>0.05 (NS)**	Non - significant
	Medical	0	3	2		
	Others	1	18	6		
6	*Occupational status of father*				χ2=41.56, df=30, **p>0.05 (NS)**	Non - significant
	Medical	0	0	0		
	Others	1	21	8		
7	*Previous Knowledge*				χ2=6.76, df=2, **p<0.05 (S)**	Significant
	Yes	0	19	7		
	No	1	2	1		
8	*Socio - economic status*				χ2=9.18, df=4, **p<0.05 (S)**	Significant
	Low (<2lakhs)	1	4	0		
	Middle (2 - 5 lakhs)	0	17	7		
	High (>5 lakhs)	0	0	1		

Association of the level of knowledge with their selected demographic variables. Findings reveal that significant association was observed between the pre - test knowledge level and the selected demographic variables. Whereas, association was found significant only with the previous exposure to CPR and with no other demographic variables.

4. Conclusion

After conducting the self - structured teaching Programme regarding C. P. R on B. Sc. nursing 2nd year students. The knowledge level of B. Sc. Nursing 2nd year students is enhanced. Majority of students (70%) have good knowledge regarding C. P. R after the teaching Programme.

5. Limitation

- The study was limited to B. Sc. Nursing 2nd year students between the age group of (18 - 23 yrs.)
- The study had only one group to check the effectiveness of self - structured teaching Programme.
- The samples were selected by purposive sampling technique.

6. Recommendations

- The study can be replicated in large sample size.
- A similar study can be done in different settings and in different population.
- A comparative study can be done to having two groups.

References

Book references:
[1] B. T. Basavanthappa**, "MEDICAL SURGICAL NURSING"**, 2nd Edition (2009), Jaypee publishers India, Pp no: 956 - 958.
[2] Brunner & Suddarth's**, "TEXTBOOK OF MEDICAL SURGICALNURSING",** 10th Edition (2004), ", Lippincott Williams & Wilkins, Pp No: 250 - 251.
[3] Thomas kochuthresiamma, **"Medical Surgical Nursing",** 1st edition, jaypee brother medical publisher (p) Ltd. Volume 2nd, New Delhi 2018, Pp no.482 - 483.
[4] Joyce. M. Black et al**. " Medical Surgical Nursing"**, 7th edition, Elsevier publishers Pp no.472 - 474.
[5] Sharma MP. Comprehensive **Textbook of Medical Surgical Nursing II**, 2nd edition, A. I. T. B. S. publishers, New Delhi.

Journals
[6] A - Kaushal Patidar. Knowledge regarding Basic Life Support among Traffic police. International Journal of Advances in Nursing Management. vol.7.2017
[7] B - Lolita Lal. assess effectiveness of self - structured teaching program on cpr. The Nursing Times of India
[8] C - Mr. Zakarya assess awareness of BLS among 348 doctors practising in tertiary care hospitals. The Nursing Times of India

Internet references:
[9] https: //newsabplive. com/science/worldheart - day2022 - 70 - of - heart - attackdeath - lastyear - occured - in - 30 - 60 - age - group.1555818/amp
[10] https: //www.who. int/healthtopics/cardio - vascular - diseases
[11] https: //www.redcross. org/take - a - class/cpr/performing - cpr/cpr/steps
[12] https: //world–heart - federation. org/news/world - heart - day - global - awareness - and - opinion - survey
[13] https: //www.ncbi. nlm. nih. gov/pmc/articles/PMC5336753/
[14] https: //medcraveonline. com/NCOAJ/a - study - to - assess - the - knowledge - regarding - cardiopulmonary - resuscitation - cpr - among - 1st - year - gnm - diploma - nursing - students - students - studying - in - snd - college - of - nursing - with - a - view - to - develop - an - information - booklet. html
[15] https: //www.semanticscholar. org/paper/Effectiveness - of - Demonstration - Regarding - on - and - Salunkhe - Dias/cda831af2ffdb3578646331b80a8fe5050e99eac
[16] https: //www.researchgate. net/publication/46402359_Effective_planned_teaching _programme_on_knowledge_practice_of_basic_life_s upport_among_students_in_Mangalore
[17] https: //jpma. org. pk/article - details/1607
[18] https: //pubmed. ncbi. nlm. nih. gov/28045012/