



A study to evaluate the effectiveness of video assisted teaching programme on knowledge regarding cardiopulmonary resuscitation (CPR) among ANM students in selected index nursing college, Indore (M.P.)

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Abstract

The study focuses on the critical importance of CPR (Cardiopulmonary Resuscitation) training in India, where around 750,000 deaths occur annually due to sudden cardiac arrests. Despite the proven benefits of bystander CPR, less than 1% of the Indian population is trained. The research aims to evaluate the effectiveness of a Video Assisted Teaching Programme on CPR knowledge among ANM Nursing students at INDEX Nursing College, Indore. The study employs a quantitative research approach with a one-group pretest post-test design involving 50 students using structured questionnaires to assess knowledge and demographic data. Hypotheses include expectations for increased post-test knowledge scores and associations between pretest knowledge and demographic variables. Data analysis and interpretation: the mean post-test knowledge score (14.86) significantly exceeds the pretest score (5), with a lower standard deviation for post-test ($SD=1.51$) compared to pretest ($SD=2.36$). The paired t value ($t_{49}=34.86, p<0.05$) is greater than the tabulated t value ($t_{49}=1.677, p<0.05$), confirming a significant difference and leading to the rejection of the null hypothesis in favor of the research hypothesis. This indicates that VATP effectively enhances CPR knowledge among ANM students. 8. Discussion & Conclusion the study was done to assess the effectiveness of video assisted teaching programme on knowledge regarding CPR among ANM students in selected INDEX nursing college.

Keywords: Video assisted teaching programme, knowledge, cardiopulmonary resuscitation, axillary nurse midwife students

Introduction

Introduction and Background of the Study: The heart is vital for oxygen and blood supply. Cardiac arrest leads to loss of consciousness, breathing, and pulse, risking brain damage or death within minutes without swift intervention. CPR, which includes rescue breathing and chest compression's, is critical for survival. The American Heart Association emphasizes that immediate access to an AED and early chest compression's significantly improve survival chances.

Need of The Study: The study highlights the urgent need for CPR training in India, where approximately 750,000 deaths occur annually due to sudden cardiac arrests, with effective bystander CPR significantly increasing survival chances. Despite international efforts, less than 1% of the Indian population is trained in CPR. A quasi-experimental study by Sunam *et al.* (2023) evaluated a structured educational program for sixty traffic police officers, showing substantial improvements in CPR knowledge and skills. In Madhya Pradesh, an estimated 17,000 to 34,000 cases of sudden cardiac arrest occur annually, with significant cardiovascular risk factors present in the region. The research underscores the importance of Video assisted teaching programme to enhance CPR knowledge among ANM Nursing students in selected INDEX nursing college Indore, addressing the knowledge gap that can impede emergency interventions.

Problem Statement: "A Study To Evaluate The Effectiveness Of Video Assisted Teaching Programme On

Knowledge Regarding Cardiopulmonary Resuscitation (Cpr) Among Anm Students In Selected Index Nursing College, Indore (M.P.)"

Objective

1. To assess the pretest knowledge score regarding CPR Techniques among ANM students.
2. To evaluate the effectiveness of Video assisted teaching programme on Knowledge regarding CPR Techniques among ANM students.
3. To find out association between pretest knowledge and their selected demographic variables.

Research Hypothesis

- **(H₁):** The mean post-test knowledge score will be significantly higher than the mean pretest knowledge score regarding CPR techniques among ANM Students after the Video assisted teaching programme.
- **(H₂):** There will be significance association between pretest knowledge and their selected demographic variables.

Research Methodology

Research Approach: Quantitative approach.

Research Design: one group pretest post-test research design.

Dependent Variable: Knowledge of cardiopulmonary resuscitation.

Independent Variable: Video Assisted Teaching Programme.

Population: ANM students.

Research Setting: Selected INDEX Nursing College.

Sampling Technique: Non-probability purposive sampling technique.

Sample Size: 50

Sampling Criteria

Inclusion Criteria

- Who are all willingly to participate in this study.
- Who are available at the time of data collection.

Tool for Data Collection: Part 1: Demographic data of ANM students.

Part 2: Assessment of knowledge by structured knowledge questionnaire.

Data Analysis and Interpretation: Data are based on data collected through structured knowledge questionnaire. Analysis and interpretation of data was done by using

descriptive and inferential statistics based on the objectives of the study and hypothesis to be tested.

Table 1: Frequency and percentage distribution of sample according to their age (N = 50)

S.no.	Demographic variable	Frequency	Percentage
1. Age in years			
a	18-24	14	28%
b	25-31	12	24%
c	32-38	16	32%
d	above38	8	16%
Total		50	100%

Interpretation: Data shows that majority of the ANM Students (32%) were in the age group of 32-38 years old, (28%) were age group of 18-24years, (24%) were the age group of 25-31 years and (16%) of the women were in the age group of above 38years.

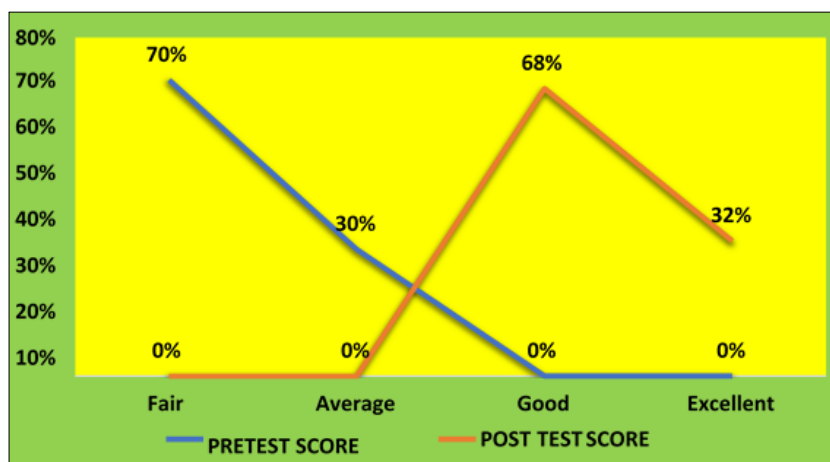


Fig 1: Line diagram depicting grading of sample based on pretest and post test knowledge score

Table 2: Grading of sample based on pretest knowledge score and post-test knowledge score (N= 50)

S.No.	Score	Grading	Pretest score		Post test score	
			Frequency	Percentage	Frequency	Percentage
1.	0-5	Fair	35	70%	0	0%
2.	6-10	Average	15	30%	0	0%
3.	11-15	Good	0	0%	34	68%
4.	16-20	Excellent	0	0%	16	32%
Total			50	100%	50	100%

Interpretation Data in table no. 4.9 shows that 32% of ANM Students had scored excellent in post test compared to pre test scored 0%, 68% ANM students had scored good in post test as they scored 0% in pre test This indicates that VATP was effective in increasing knowledge score regarding knowledge regarding Cardiopulmonary Resuscitation (CPR).

Table 3: Comparison between Mean, Standard deviation and ‘t’ value of pretest and post-test knowledge score (N= 50)

Knowledge score	Mean	SD	Mean difference	t – Value	Result
Pretest	5	2.36			
Post Test	14.86	1.51	9.86	34.86	S

Paired t value 49=34.86, P<0.05

Interpretation: The data presented in table no. 3 shows that the mean post test knowledge score 14.86 is apparently higher than the mean pretest knowledge score (5), the dispersion of post test score (SD±1.51) is lesser than pretest score (SD±2.36) and the paired t value (t 49=34.86 p<0.05) is greater than tabulated t value (t 49=1.677 p<0.05) shows there is significance difference between pretest and post test knowledge score, thus null hypothesis is rejected and

research hypothesis is accepted. This indicated that VATP is effective in increasing knowledge score regarding CPR among ANM students.

Discussion & Conclusion: The study was done to assess the effectiveness of video assisted teaching programme on knowledge regarding CPR among ANM students in selected INDEX nursing college the study considered of 50 samples

that were selected on the basis of non-randomized sampling technique. Based on objective, data analysis was done.

Recommendation

- The similar study can be conducted with large samples and different demographic variable.
- A similar study can be do at different settings to strengthen findings.
- A study can be conducted by quasi experiment research design.
- The study can be conducted with aim to provide guideline.

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References

1. Smelter CS, Bare BG. Brunner and suddarth textbook of medical surgical nursing 10th edition. Lippincott Williams and Wilkins, 2004, 725.
2. Lewis's SL, Bucher. Medical surgical nursing Assessment and management of clinical problem (10th edition). Elseviers india Pvt. Limited publication, 2017, 767-775.
3. Brunner & suddharth's. Textbook of medical-Surgical Nursing, 12th edition, 2022, 843-845.
4. Basavanthapa BT. Nursing Research and Statistics 887. Jaypee Brother's Medical Publisher, India, 2014, 1127-1133.
5. Sharma SK. Nursing Research and statistics. 4th edition. Elsevier, New Delhi India, 2022, 145-155.
6. Basavanthapa BT. Nursing Theories. 1st edition. Jaypee Brother's Medical Publication, New Delhi, India, 2007.
7. Amitha. Evaluating the impact of a structure educational program on CPR knowledge among nursing students in selected colleges at Manglore. International journal of Cardiovascular Nursing, 2024, 1-6.
8. American Heart Association. BLS Healthcare Providers, 2010, 3-14.
9. Lin YY, Chiang WC, Hsieh MJ, Sun JT, Chang YC, *et al.* Quality of Audio-Assisted Versus Video-Assisted Dispatcher-Instructed Bystander Cardiopulmonary Resuscitation: A Systematic Review and Meta-Analysis. Resuscitation,2018:123:77-85.
10. Westch WA, Ecker HM, Scheu A, Roth R, Bottiger BW, *et al.* Video-Assisted Cardiopulmonary Resuscitation: Does the Camera Perspective Matter? A Randomized, Controlled Simulation Trial. Randomized Controlled Trial,2021:30(1):98-106.
11. Lee SGW, Kim TH, Lee HS, Shin SD, Song KJ, *et al.* Efficacy of a New Dispatcher Assisted Cardio-Pulmonary Resuscitation Protocol with Audio Call to Video Call Transition. Randomized Controlled Trial,2021:44:26-32.
12. Singh P. A Study to Assess the Effectiveness of Video Assisted Teaching Regarding the Knowledge of Cardio Pulmonary Resuscitation among B.Sc. 2nd year Students, Ambikapur, Chhattisgarh. International Journal of Advances in Nursing Management, 2022, 10(4).
13. Known OY. The Changes in Cardiopulmonary Resuscitation Guidelines: from 2000 to the Present. J Exerc Rehabil,2023:15(6):73.
14. Mrs. Vidyashri R, Dr Sneha Sahay Youtham. A Cross-sectional Analysis of CPR knowledge, Attitude, and Ability among Students in selected High Schools in Indore. International Journal of Research Publication and Reviews, 2022. www.ijrpr.com ISSN 2582-7421.