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A Comparitive Study To Assess The Effectiveness Of Video Assisted Teaching And Demonstration On Level Of Knowledge Regarding Child Cpr Among Nursing Students In A Selected Nursing College At Calicut District

PROF. DR.LINITHA.K.B, MRS.NEETHU KRSISHNA N B.

Sree Anjaneya College of Nursing, Malabar Medical College Campus, Ulliyeri, Kozhikode, India

ABSTRACT

The present study was conducted among nursing students of Sree Anjaneya College of Nursing, Calicut, to assess effectiveness of video assisted teaching programme and demonstration on the level of knowledge regarding child CPR. The main objectives of the study were:

- Assess the pre-test level of knowledge regarding child CPR among nursing students.
- Assess the effectiveness of video assisted teaching programme on level of knowledge regarding child CPR in group 1.
- Assess the effectiveness of demonstration on level of knowledge regarding child CPR in group 2.
- To compare the effectiveness of video assisted teaching programme and demonstration on child CPR among group 1 and group 2.
- To Find out the association between pre test level of knowledge with their selected Socio demographic variables.

The present study was conducted using Quasi experimental approach with Two group pre-test post-test design. Out of 60, 30 subjects are given a pre-test, video assisted teaching programme on child CPR and are given a post test. The other 30 subjects are given a pre-test, demonstration on child CPR and are given a post test.The sample consists of 60 nursing students , selected from second semester BSc Nursing Students of Sree Anjaneya College of Nursing, Calicut using convenient sampling method. The tool used was Structured questionnaire to collect socio- demographic data, structured questionnaire to assess the level of knowledge regarding child CPR.

Content validity of the tool was done with the help of experts from the respective field.

Reliability of the tool was checked with inter-rater reliability and Cronbach's alpha method. The questionnaire was administered to 6 nursing students for checking the reliability of the tool. The reliability coefficient was found to be 0.87 and hence the tool is found to be statistically reliable. A pilot study was conducted. The pilot study revealed that the tools used in the study were simple, clear and unambiguous and data were found amenable to statistical analysis. Actual study was conducted at Sree Anjaneya College of Nursing, Kozhikode. The data were tabulated and analysed by descriptive and inferential statistics.

The findings of the study revealed that the mean post-test knowledge score of nursing students undergone demonstration on child CPR is significantly higher than mean post-test knowledge score of nursing students undergone video assisted teaching on child CPR . Hence it is evident that on demonstration there was a significant improvement in the level of knowledge regarding child CPR than video assisted teaching programme on child CPR..

Based on the above results the demonstration on child CPR was effective among nursing students than the video assisted teaching programme on child CPR.

Index Terms: Child CPR, Knowledge, Nursing Students, Video assisted teaching programme, Demonstration.

I. INTRODUCTION

Child CPR is a basic life support for the purpose of oxygenating brain and heart until appropriate definitive medical treatment can restore normal respiratory and circulatory function. In essence, CPR serves as an artificial heartbeat and an artificial respiration. The availability of oxygen to tissue is a fundamental requirement for human survival. The brain of child may get permanently damaged or child may die if he fails to get oxygen supply for a brief period of 3 minutes or so. Cardiac arrest remains a serious problem and a leading cause of death all over the world in 90% cases of defibrillation and life support measures are not immediately available. In modern settings, an average of ten minutes is required for professional help to arrive. During this period victims can only depend upon resuscitation by trained personnel. Therefore, the responsibility lies on educator who need to transfer their knowledge and skills of CPR to their trainees in a simple way to be remembered during a challenging situation (ALAN SUSTIC,2010).

Nursing students often exhibit limited knowledge and confidence regarding child CPR, a critical life-saving technique.. Despite its importance, studies suggest that many students have lack of adequate training and practical exposure to this procedure, potentially hindering their ability to respond effectively in real-life situations. This gap emphasizes the need for enhanced educational programs and hands-on practice to ensure the students are well-prepared to perform child CPR. This study aims to compare the effectiveness of video assisted teaching programme and demonstration on the level of knowledge regarding child CPR among nursing students in a selected nursing college at Calicut, Kerala.

Research Methodology

The methodology section outlines the plan and methods for conducting the study, including the research approach, design, setting, population, sample, data collection tools and analysis plan.

3.1 Research Approach and Design

A quasi-experimental approach with a Two-group pre-test post-test design was adopted for the present study. This design was chosen to compare the effectiveness of video assisted teaching programme and demonstration on the level of knowledge of nursing students on Child CPR.

3.2 Population and Sample

The target population was nursing students. The sample consisted of 60 students of Second semester BSc Nursing students of Sree Anjaneya College of Nursing, Calicut, selected using a convenient sampling technique. Inclusion criteria included second semester nursing students who were willing to participate and available during the data collection period. Nursing students who have already attended training on child CPR were excluded.

3.3 Data Collection Tool and Technique

A Structured questionnaire was used for data collection, divided into two sections:

Section A: Collected socio-demographic data including age in years, gender, do you have previous knowledge regarding child CPR, if yes, specify the source of information and do you have any clinical experience regarding child CPR.

Section B: Consisted of 25 multiple-choice questions assessing the level of knowledge regarding child CPR.

Content validity of the tool was established with experts from the field, and reliability was confirmed with a Cronbach's alpha of 0.87. A pilot study ensured the tools were feasible. Video assisted teaching programme to group 1 and Demonstration was given to the group 2 nursing students on child CPR .

3.4 Ethical Considerations

Ethical clearance was obtained from the Institutional Ethics Committee. Written informed consent was taken from all participants after explaining the purpose of the study. Confidentiality and the right to withdraw were assured.

3.5 Data Analysis

Data were analyzed using descriptive statistics (frequency, percentage, mean, standard deviation) and inferential statistics (paired t-test to compare pre- and post-test scores, Chi-square test to find associations). A p-value of less than 0.05 was considered statistically significant.

Results and Discussion

4.1 Socio-Demographic Characteristics

The analysis of demographic data of group 1 revealed that the majority of participants in were 18-21 years (93.30%), (66.70%) of students were female, 100 % had previous knowledge child CPR , 26.7% has knowledge from webinar and conferences and 0% clinical experience in child CPR .Demographic data of group 2 revealed that the majority of participants in were 18-21 years (86.7%), (60%) of students were female, 100 % had previous knowledge child CPR , 63.3% has knowledge from social media and 0% clinical experience in child CPR

4.2 Assessment of Level of Knowledge on Child CPR

The pre-test and post-test knowledge scores are presented in Table 1.

Table 1: Frequency and Percentage Distribution of Pre-test and Post-test Knowledge Scores (N=60)

Level of Knowledge	Pre-test Score	Post-test Score
	%	%
Poor (<50%)	23.4%	13.4%
Good (≥50%)	76.6%	86.6%
Total	100%	100%

Table 1 shows that in the pre-test, 23.4% of participants had poor knowledge, which decreased to 13.4% in the post-test. Conversely, the proportion of participants with good knowledge increased from 76.6% to 86.6% after the intervention.

4.3 Effectiveness of the Video assisted teaching programme on child CPR.

The effectiveness was determined by comparing the pre-test and post-test mean knowledge scores using a paired t-test, as shown in Table 2.

Table 2: Effectiveness of Video assisted teaching programme on Knowledge Scores (N=30)

Group	Mean Score	Standard Deviation	p-value
Pre-test	9.86	2.38	0.001
Post-test	12.10	2.68	

Table 2 demonstrates a statistically significant increase in the mean knowledge score from 9.86 in the pre-test to 12.10 in the post-test. The calculated p-value of 0.001 ($p < 0.05$) indicates that the demonstration was effective in improving the nursing students knowledge . Thus, the hypothesis (H1) that there is a significant difference between pre-test and post-test knowledge scores is accepted.

4.4 Effectiveness of the Demonstration on child CPR.

The effectiveness was determined by comparing the pre-test and post-test mean knowledge scores using a paired t-test, as shown in Table 3.

Table 3: Effectiveness of Demonstration on Knowledge Scores (N=30)

Group	Mean Score	Standard Deviation	p-value
Pre-test	8.53	2.52	0.001
Post-test	14.40	3.83	

Table 3 demonstrates a statistically significant increase in the mean knowledge score from 8.53 in the pre-test to 14.40 in the post-test. The calculated p-value of 0.0001 ($p < 0.05$) indicates that the demonstration was highly effective in improving the nursing students knowledge. Thus, the hypothesis (H2) that there is a significant difference between pre-test and post-test knowledge scores is accepted.

4.5 Effectiveness of Video assisted teaching programme and Demonstration on child CPR.

The effectiveness was determined by comparing post-test mean knowledge scores using a paired t-test, as shown in Table 4.

Table 4: Effectiveness of Video assisted teaching programme and Demonstration on Knowledge Scores (N=60)

Group	Mean Score	Standard Deviation	p-value
Video Post-test	12.10	2.68	0.035
Demonstration Post-test	14.40	3.83	

Table 4 demonstrates a statistically significant increase in the mean post test knowledge score of demonstration 14.40 than the post test score of video assisted teaching programme 12.10. The calculated p-value of 0.0001 ($p < 0.05$) indicates that the demonstration was highly effective in improving the nursing students knowledge than the video assisted teaching programme on child CPR.

4.6 Association between Pre-test Knowledge and Demographic Variables

The Chi-square test revealed significant association ($p > 0.05$) between the pre-test knowledge scores and any of the selected socio-demographic variables, including age in years, gender, do you have previous knowledge regarding child CPR, if yes, specify the source of information and do you have any clinical experience regarding child CPR.Therefore, the hypothesis (H3) of a significant association is accepted.

Conclusion

The present study concluded that video assisted teaching programme and demonstration on child CPR among nursing students had inadequate knowledge in the pre-test. The demonstration proved to be an effective strategy than video assisted teaching programme, as evidenced by the significant improvement in post-test knowledge scores. The findings underscore the pressing need for demonstration to enhance awareness. Nurses, as health educators, play a vital role in organizing such awareness programs in various community and educational settings to empower nursing students and ultimately contribute to improve knowledge on child CPR.

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