



EFFICACY OF VIDEO-ASSISTED TEACHING VERSUS DEMONSTRATION TEACHING STRATEGIES OF KNOWLEDGE REGARDING CARDIOPULMONARY RESUSCITATION (CPR)

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ABSTRACT

Cardiopulmonary resuscitation (CPR) is a critical skill for undergraduate students, as timely intervention can save lives during cardiac arrest. This study aimed to evaluate the effectiveness of video-assisted teaching versus traditional demonstration in enhancing CPR knowledge among undergraduate students. A quantitative survey approach with a non-experimental descriptive, comparative design was employed, involving 100 undergraduate students. Probability sampling followed by simple random sampling was utilized for participant selection. A structured knowledge questionnaire tool was used for data collection. The results indicated significant improvements in CPR knowledge post-intervention for both video-assisted teaching and demonstration groups, with $p < 0.05$. However, the post-assessment scores revealed that video-assisted teaching was significantly more effective in enhancing CPR knowledge compared to demonstration alone ($p < 0.05$). In conclusion, video-assisted teaching proves to be a superior method for CPR education among undergraduate students compared to traditional demonstration, providing standardized training, enhanced understanding, and cost-effectiveness. This study underscores the significance of innovative teaching strategies in CPR education for future healthcare professionals.

Keywords: Cardiopulmonary resuscitation (CPR), Video-assisted teaching, Knowledge, Efficacy.

INTRODUCTION

Cardiopulmonary resuscitation (CPR) stands as a critical intervention for sustaining life during cardiac arrest, a medical emergency with potentially fatal consequences. Prompt initiation of CPR is vital, as every minute without circulation decreases the chances of survival^[1]. While CPR is relatively simple, studies indicate that both laypersons and healthcare professionals often lack proficiency and retention in its practice^[2].

This study focuses on evaluating the efficacy of video-assisted teaching compared to traditional demonstration in enhancing CPR knowledge among first-year undergraduate students. Video-assisted teaching offers advantages such as standardized training, enhanced comprehension, and cost-effectiveness^[3]. By leveraging visual aids and interactive learning, it aims to provide

essential knowledge and skills to individuals who may be called upon to perform CPR in emergency situations where healthcare professionals are not readily available.

The American Heart Association's 2020 guidelines emphasize the importance of high-quality CPR, stressing factors like compression rate, depth, complete chest recoil, and minimal interruptions^[4]. Despite advancements in training methods, CPR performance remains suboptimal, highlighting the need for innovative educational approaches.

Through this research, we aim to assess the impact of video-assisted teaching on CPR knowledge acquisition among undergraduate students. By comparing its efficacy with traditional demonstration, we seek to identify effective teaching strategies that can equip individuals with the competence and confidence to administer CPR effectively, potentially saving lives in critical situations.

METHODS

The study adopts a quantitative survey approach to address the research problem. Utilizing a non-experimental Descriptive. Probability sampling, followed by systematic random sampling, was employed to select participants for the study.

TABLE: 1 Knowledge Scores of Video-assisted Teaching on Cardiopulmonary Resuscitation

N=200

Area of Analysis	Pre-Test	Post-Test
(Video-Assisted teaching group) Mean	12.6	23.8
(Demonstration group) Mean	14.2	21.7

RESULT

The study found a significant increase in the overall Cardio Pulmonary Resuscitation (CPR) scores among subjects following Video-Assisted teaching, with a mean difference of 11.14 units. The analysis revealed a statistically significant difference between mean post-assessment scores and mean pre-assessment scores on CPR. The calculated 't' value ($t_{cal.} = 48.70$) exceeded the tabulated 't' value ($t_{tab.} = 1.66$), This suggests that the mean post-assessment score after Video-Assisted teaching was significantly greater than the mean pre-assessment score at a significance level of $p < 0.05$. Similarly, a statistically significant difference was observed between the mean post-assessment scores of Video-Assisted teaching and Demonstration groups. The calculated 't' value ($t_{cal.} = 5.81$) surpassed the tabulated 't' value ($t_{tab.} = 1.65$). This indicates that the mean post-assessment score of Video-Assisted teaching in comparison group 1 was significantly higher than the mean post-assessment score of Demonstration in comparison group 2 at a significance level of $p < 0.05$. These findings underscore the effectiveness of Video-Assisted teaching in improving CPR knowledge among undergraduate students compared to traditional Demonstration methods.

CONCLUSIONS

The study concludes that both Video-Assisted teaching and Demonstration effectively increased CPR knowledge among undergraduate students, with Video-Assisted teaching

proving more effective. Nursing education should integrate CPR training using innovative methods, emphasizing continuing education. This research contributes to CPR education literature and underscores the importance of evidence-based practice for improved patient outcomes.

RECOMMENDATION

Further research avenues include large-scale studies for broader applicability, exploration of CPR education in non-medical sectors, and comparative analyses between video and audio-assisted CPR delivery. Evaluating various teaching strategies, self-instructional modules, and game simulations could enhance CPR training effectiveness, informing future instructional methods for optimal skill acquisition and emergency response readiness.

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