

Evaluation of Knowledge and Skill Retention by Self-Directed Video Learning and Demonstration on Basic Life Support among First-Year Nursing Students

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ABSTRACT

Background: Basic life support is critical to reduce cardiac arrest mortality on a global basis. The retention of basic life support knowledge and skills in nursing students needs to be a concern. To enhance the delivery of knowledge and skills directly to nursing students, an appropriate method is needed so that the material can be conveyed and understood over a long period of time by using demonstration methods and self-directed video. Additionally, assessing the effectiveness of self-directed videos and demonstrations in improving retention of knowledge and skills is essential. **Methods:** The experimental group engaged in self-directed video learning for three days, whereas the control group received a two-hour instructor-led demonstration. This experimental study employed an interrupted time-series design and included 160 first-year nursing students from Kusuma Husada Surakarta University, Indonesia, who were randomly assigned to each group. Outcome assessments were conducted at 4, 8, and 12 weeks following the intervention. Data analysis was performed using the Mann–Whitney test. **Results:** The significance value of 0.000, which is less than 0.05, indicates that there was a positive difference in knowledge and skill retention with self-directed video and demonstration. **Conclusion:** After being treated with self-directed video and demonstration, there was a significant difference in the retention of basic life support knowledge and skills. The demonstration with feedback by the instructor had better retention than the self-directed video. Implementing demonstration in learning for nursing students increases understanding and retention and produces competent nursing students and beneficial public health.

Keywords: Adult; Cardiac Arrest; Cardiopulmonary; Nursing

INTRODUCTION

An emergency event usually arises quickly and is difficult to predict. To properly handle these situations, vigilance and preparedness are required to take the first action. In their work, nurses may encounter various emergency cases, such as sudden cardiac arrest, both inside and outside the hospital (Kose *et al.*, 2019). In such situations, nurses are expected to be the first to perform basic life support measures. Nurses must provide effective care to ensure patient recovery and reduce the amount of disability by providing first aid and Basic Life Support (BLS) in acute conditions (Kose *et al.*, 2019). Previous studies have shown that the ability of nurses to perform high-quality BLS is an indicator of survival for heart attack patients (Saidu *et al.*, 2023).

The American Heart Association (AHA) Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care 2020 AHA emphasises the focus of the Chain of Survival on Basic Life Support, namely early recognition and activation by performing immediate recognition of cardiac arrest conditions and activating the Emergency Medical Responses (EMS), providing cardiopulmonary resuscitation as early as possible, performing defibrillation as soon as possible, providing advanced life support effectively and finally providing post-cardiac arrest care that is integrated with the hospital, and adding a recovery phase for the patient and also for the helper (Atkins *et al.*, 2022). The AHA emphasises the need for competency in BLS practices

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among all members of the healthcare team to reduce cases of sudden cardiac arrest. However, education through theory alone is not enough to demonstrate success in BLS. To be successful, knowledge of BLS needs to be updated, BLS practices need to be applied as often as possible, and a manual guideline for the healthcare team should be established (Saidu *et al.*, 2023).

However, although the AHA has provided guidelines for performing basic life support, it was reported that the BLS competence of nurses and nursing students was lacking before the training (Srivilaithon *et al.*, 2020). Another study found that nurses' knowledge was on average good. However, it does not reflect the practice of good skills (Isa *et al.*, 2022). Nurses do not have appropriate Cardiopulmonary Resuscitation (CPR) skills (Saidu *et al.*, 2023). A similar study showed that the average skill value of nursing profession students was sufficient before being given simulation (Kose *et al.*, 2019). Value increased after simulation (Anggraini *et al.*, 2020). Previous training was a contributing factor (Isa *et al.*, 2022). It is necessary to improve student nurses' knowledge of BLS. Nurses may already have prior knowledge, but training can improve knowledge and practice skills in BLS (Anggraini *et al.*, 2020b).

As a critical determinant, the level of knowledge and skills is closely related to the training received (Saidu *et al.*, 2023). Nursing students need to receive BLS training in the learning curriculum (Detiana *et al.*, 2021). It is necessary to develop appropriate learning methods for nursing students in order to achieve learning outcomes. Student learning outcomes will reflect the achievement of all competencies (Tsimane & Downing, 2020). Demonstration and simulation training is often applied as a learning method in nursing and has been shown to improve learning outcomes (Nurul & Silvy, 2019). The research conducted showed an increase in understanding of basic life support (BLS) after getting self-directed video and roleplay learning (Chong *et al.*, 2023). However, another study showed an increase in skills after training and retention of skills 1 month after training (Nemat *et al.*, 2023). Average skills decreased 6 months after training. At six months, the knowledge and skills performance scores were significantly lower than the evaluation at the end of teaching, but they were still higher than the baseline scores (Srivilaithon *et al.*, 2020). Video learning allows students to have access to the video multiple times. Video learning allows students to have access to the videos multiple times. The results of knowledge level in self-directed learning methods with videos and accompanied by instructors both significantly improved skill retention from baseline to post-test 1 month, 3 months, and 6 months later (Saidu *et al.*, 2023).

Researchers are interested in further examining the retention of knowledge and skills after the provision of independent videos and demonstrations of basic life support in first-year nursing students. Through this study with the use of a large sample, it is hoped that the right learning method can be identified for nursing students and measure the retention of knowledge and skills of early intervention at 4 weeks, 8 weeks, and 12 weeks. So that steps to prevent the decline in CPR knowledge and skills can be taken immediately. This study aims to assess the retention of knowledge and skills after giving self-directed video and demonstration of basic life support to first-year nursing students.

METHODOLOGY

Research Design

The design of this study was quasi-experimental through a pre-test-post-test with a control group approach. The research was conducted at Kusuma Husada University, Surakarta, Indonesia. One hundred and sixty (160) samples of first-year nursing students were selected and divided into two groups randomly: 80 respondents for the independent video group and 80 respondents for the demonstration group. Inclusion criteria in this study were: First-year diploma three nursing students, and the students had never attended BLS courses or training before the study and were willing to become respondents. Exclusion criteria in this study were: students who did not complete the entire series of research until completion. First aid training and other life support training in the programme curriculum will be given to second- and third-year students.

Therefore, the sample consisted only of first-year nursing students who had not been exposed to first aid training and other life support training, with a total number of 160 students, so all students were included in this study, and all of them completed the study from start to finish. The experimental group was formed using a non-

randomised technique. The study assessed retention rates for basic life support knowledge and practice.

Intervention

All respondents who participate will meet with the researcher to explain all protocols and seek written informed consent. Prior to the intervention day, participants were blinded to the intervention. The intervention group was given 3 days of self-directed videos, including watching an instructional video for 30 minutes followed by 90 minutes of manikin practice with no feedback from the facilitator, but feedback from the peer group, and 3 days to watch the videos. The control group was given a demonstration, including 15 minutes of face-to-face lecture-based class and 15 minutes of demonstration from the instructor, followed by 90 minutes of manikin practice with feedback from the facilitator. The self-directed videos used by the researchers followed the AHA 2020 guidelines, and the demonstrations provided by the instructors were licensed from a Training of Trainers (TOT) workshop. The mannequins used in this study were PRESTAN professional adult mannequins.

Questionnaire

A set of two questionnaires was used in the study. Content validity was checked by three validators with long working experience in basic life support. The internal consistency of instruments was tested on 10 nursing students whose eligibilities were similar to that of the study samples. The instruments used were described as follows:

The personal information questionnaire developed by the researchers consisted of demographic information of nursing students (including age, sex and prior experience providing basic life support).

The assessment instruments were theoretical tests (18 multiple-choice questions) related to adult CPR knowledge developed by the researchers based on American Heart Association (2020) CPR guidelines for adults (Atkins *et al.*, 2022). It contains 18 items with a correct rating of 1 and an incorrect rating of 0. The maximum possible score is 18, and the lowest is 0. The higher the score, the higher the knowledge of the nursing student. Cronbach's Alpha value is 0.76 (Kothari, 2004).

Nursing student performance skills were assessed using an observational sheet based on the updated American Heart Association (2020) CPR guidelines for adults. This checklist consists of 15 adult CPR items rated in two levels: “done correctly and completely” was rated 1, and “done but not completely or not accurately and not done” as 2.

Quantitative Data Collection

Data collection was conducted from May to July 2023. Upon the approval for ethical consideration, a permission to collect data. Three lecturers of emergency nursing at the study setting were recruited to be research assistants as observers of BLS skills; a brief training of how to conduct the study procedures was given to them. The eligible participants selected were gathered by the first researcher and research assistants for explaining the researcher's goals and objectives of the research and providing informed consent. After respondents agreed to take part in the research, the researcher and two research assistants started collecting data. A pre-test of knowledge using a questionnaire and observation of the respondent's skills was carried out before the intervention was given to both groups. Intervention was then given to the self-directed video group, and training was given to the demonstration group involving the instructor. After completing the intervention, knowledge and skills in carrying out adult CPR were measured in both groups. Post-tests for CPR knowledge and skills were carried out immediately after the intervention and repeated at 4 weeks, 8 weeks, and 12 weeks.

Steps of Data Collection

The questionnaire was assessed for both validity and reliability. Knowledge levels were measured prior to the administration of the intervention. The experimental group received an intervention consisting of self-directed videos, while the control group was provided with a demonstration. The experimental group self-directed video for 3 days to watch the video independently. The control group demonstration was 2 hours long and accompanied by the instructor. The instructors in this study had earned a master's degree in emergency nursing and were certified to provide basic life support training approved by the Indonesian National Nurses Association Training Centre. Four additional researchers observed the respondents during the observation. Each observed 20

respondents of the self-directed video group and 20 respondents of the demonstration group at different times.

Knowledge and skills were assessed at multiple time points post-intervention: immediately after the intervention (early post-intervention), as well as at 4, 8, and 12 weeks. Data were statistically analysed using the Statistical Package of the Social Science (SPSS) software program version 20.0. The significance level was set at .05. Descriptive statistics were used to describe demographic characteristics and the study variables. Data knowledge and skills are presented in the form of minimum, maximum, mean, median and 95% CI. The Friedman test with Wilcoxon post hoc was used to analyse the effectiveness of self-directed videos and demonstrations on knowledge and skills before and after the early post-intervention, 4 weeks, 8 weeks and 12 weeks (Creswell & Creswell, 2017). The difference in retention of knowledge and skills in the self-directed video group and the demonstration group was tested using Mann-Whitney (Creswell & Creswell, 2017).

Ethical Consideration

This study was approved by the review board of the Ethics and Research Committee of Kusuma Husada University, Indonesia, with reference number 045/UKH.L.02/EC/IX/2022 on 10th January, 2023.

RESULTS

Characteristics of the Participants

Table 1: Respondent Characteristics Based on Gender and Experience Providing BLS

Characteristic	Subject	Frequency	Percent	Total
Gender	Male	35	21.9%	100%
	Female	125	78.1%	
Experience providing BLS	Experienced	0	0%	100%
	Not experienced	160	100%	

Participants included 160 students who had been divided into two groups. Table 1 shows that eighty students were allocated to the intervention group with live video self and 80 students to the control group with demonstration. The majority of first-year nursing students who joined the study were female, 78.1%. All respondents had no previous experience in providing basic life support to people with cardiac arrest.

The Effectiveness of Self Direct Video and Demonstration on Knowledge and Skills First Year Nursing Students

Table 2: Effectiveness of Self-Direct Video and Demonstration for Knowledge and Skills of First Year Nursing Students of BLS

Variable	Groups	Score	Median (Minimum-Maximum)	df	p-value
Knowledge	Self-Direct Video	Pre (n=80)	0 (0-5)	4	0.00*
		Post 1 (n=80)	80 (75-90)		
		Post 2 (n=80)	80 (70-85)		
		Post 3 (n=80)	80 (60-80)		
		Post 4 (n=80)	60 (50-60)		
	Demonstration	Pre (n=80)	5 (0-10)	4	0.00*
		Post 1 (n=80)	90 (85-100)		
		Post 2 (n=80)	90 (80-90)		
		Post 3 (n=80)	85 (80-85)		
		Post 4 (n=80)	80 (75-85)		
Skills	Self-Direct Video	Pre (n=80)	5 (0-22)	4	0.00*
		Post 1 (n=80)	85 (75-95)		
		Post 2 (n=80)	80 (70-90)		
		Post 3 (n=80)	80 (65-85)		
		Post 4 (n=80)	75 (60-85)		
	Demonstration	Pre (n=80)	10,00 (0-50)	4	0.00*
		Post 1 (n=80)	94 (75-100)		
		Post 2 (n=80)	85 (70-95)		
		Post 3 (n=80)	85 (65-95)		
		Post 4 (n=80)	80 (60-95)		

*The results are statistically significant at the 95% confidence level

The result in table 2 showed that “there are at least four different measurements” with a p -value = 0.000 for the comparison of all groups. Thus, it can be concluded that statistically the value of knowledge and skills before and after self-directed video and demonstration is different at the early assessment, 4 weeks, 8 weeks and 12 weeks. The highest score after the assessment was obtained in the early assessment; the median skills score in the self-directed video group was 83.83 (75-95), and the median score in the demonstration group was 92.27 (75-100). The post-test score decreased further in the 4 weeks, 8 weeks and 12 weeks.

Table 3: Comparing Retention of Knowledge in Self-Direct Video Group and Demonstration Group

	Groups	Median (Minimum-Maximum)	Mean Rank	p value
Retention Post 1 (early asses)	Demonstration	90 (85-100)	44.85	0.000*
	Self-direct video	80 (75-90)	16.15	
Retention Post 2 (2 weeks)	Demonstration	90 (80-90)	44.92	0.000*
	Self-direct video	80 (70-85)	16.08	
Retention Post 3 (4 weeks)	Demonstration	85 (80-85)	44.10	0.000*
	Self-direct video	80 (60-80)	16.90	
Retention Post 4 (6 weeks)	Demonstration	80 (75-85)	45.50	0.000*
	Self-direct video	60 (50-60)	15.50	

*The results are statistically significant at the 95% confidence level

The results of the research in table 3 show that there is a difference in median score for knowledge in the demonstration group and the self-directed video group. The p -value in the Friedman test and post-hoc Wilcoxon test before and after training at early assessment, 4 weeks, 8 weeks, and 12 weeks was 0.000 in the demonstration group and the self-directed video group.

Table 4: Comparing Retention of Skills in Self Direct Video Group and Demonstration Group

	Groups	Median (Minimum-Maximum)	Mean Rank	p value
Retention Post 1	Demonstration	92.27 (75-100)	40.77	0.000*
	Self-direct video	83.83 (75-95)	20.23	
Retention Post 2	Demonstration	87.73 (70-95)	39.17	0.000*
	Self-direct video	81.23 (70-90)	21.83	
Retention Post 3	Demonstration	85.70 (65-95)	40.78	0.000*
	Self-direct video	78.67 (65-85)	20.22	
Retention Post 4	Demonstration	82.20 (60-95)	39.32	0.000*
	Self-direct video	74.50 (60-85)	21.68	

*The results are statistically significant at the 95% confidence level

The median skills score for the demonstration group was higher on every measure (table 4). The highest retention average value was 8 weeks after giving the demonstration, with a mean rank of 40.78. The p -value=0.000 statistically shows that there is a significant difference in skills retention between the self-directed video group and the demonstration group.

Based on the data above, there is a difference in the median between the Demonstration group and the Self-Directed Video group, with the median value for the Demonstration group being higher at each measurement. The highest mean retention rank value was in the Demonstration group at 4 weeks post-Demonstration, with a mean rank of 40.78. The median (minimum-maximum) value of 92.27 (75-100) in the Demonstration group was higher than in the Self-Directed Video group at each measurement point (early assessment, 2 weeks, 4 weeks, and 6 weeks). The statistically significant p -value of 0.000 indicates a significant difference in skill retention between the Self-Directed Video group and the Demonstration group.

DISCUSSION

This study aimed to assess knowledge and skill retention after providing videos and self-demonstrations to first-year nursing students. The nursing students involved in this research were predominantly female. The phenomenon shows that the prevalence of females compared to males in the nursing profession is very dominant. The World Health Organization reports that globally; the number of nurses is dominated by women. Previous research also stated that more than 60% of nurses are female. Women are considered more compassionate when providing care (Yava *et al.*, 2023). In carrying out their role as nurses, women are considered more flexible than men (Chen *et al.*, 2017).

All respondents in this study had never had experience providing basic life support in cases of cardiac arrest. First-year students are those who have studied at university for less than three semesters or 15 months. Basic life support for first-year nursing students can also be categorised as new. Therefore, they are less likely to receive knowledge about basic life support. They also do not have experience performing basic life support. Most people have never had the experience of performing cardiopulmonary resuscitation in cases of cardiac arrest (Yava *et al.*, 2023).

The results of this study show that there is a significant difference in the pre-test and post-test scores of early assessments, 4 weeks, 8 weeks, and 12 weeks in the self-directed video group and demonstration group. The research results also showed that there was a significant difference in knowledge and skills retention between the self-directed video group and the demonstration group. These results support previous research that shows demonstrations and simulations can improve basic life support skills in nursing students (Gun & Aldinc, 2022). The study supports previous research that showed that there was a 20% increase in knowledge and 80% retention of knowledge after 3 months. Students in the group given the expository class, demonstration, and simulation had the highest performance among the other two groups (Elvira *et al.*, 2024). In groups that obtained material and demonstrated it in person as well as had the opportunity to perform simulations, they had greater confidence in learning. And the more a person is exposed to matter, the higher their retention will be and the better their understanding of the theory will be (Mekonnen & Muhye, 2020).

Similar to previous studies, skill scores decreased 4 weeks after demonstration and 4 weeks after it. Two factors that can contribute to the decline in knowledge are the difficulty of the test performed, and the time spent between the test and the last training. Different respondent values vary in each measurement because every student has a different cognitive level (Anissa *et al.*, 2019). There is a possibility that age and experience are also influential, which are associated with cognitive and degenerative processes. Knowledge is acquired through the process of memorising (Buranasakda, 2021). Other studies found that memorising is easier to forget than knowledge gained from higher mental processes or significant practical experiences (Yava *et al.*, 2023).

Similar results were also shown in the previous study that both groups showed significant results after traditional classroom instruction and directed video instruction. However, the four individual skills scores in the instructor-led traditional classroom group scored better than the directed video group (Ghaderi *et al.*, 2023). The classroom method provides a proper overview in determining the compression point and compression rate. The trainer can provide immediate feedback as participants demonstrate the skills of determining the correct compression point and rate (Chang *et al.*, 2023). Meanwhile, in the direct video group, there was a difference in the time spent watching the video independently by the respondents. In addition, respondents were less accurate in determining the compression point and compression rate according to the High-Quality CPR (Kua *et al.*, 2018).

The study showed different measurement results in three groups (Ranjbar *et al.*, 2019). The group that received 30 minutes of classical teaching with an instructor and 60 minutes of independent practice had better CPR skill results than the group that received 20 minutes of material and 60 minutes of independent practice. The group that only received the video had the highest skill retention rate. Similar to the results of the study, post-test scores at one month after training were lower than those immediately after training. There was a decrease in skills several months after training (Ranjbar *et al.*, 2019).

In contrast to previous research findings from Sivil *et al.* (2025) that found no significant difference between post-training measurements and those taken 9 months later, a similar study measuring the efficacy of a 150-minute BLS training and its retention 8 months later found no significant difference in training retention. However, in that study, the respondents had prior experience in performing CPR, so their existing experience could be a factor influencing the retention of students' skills and knowledge.

Saidu *et al.* (2023) found that there was no significant difference in knowledge scores between the video self-instruction and led-instruction training groups on knowledge and skill retention after 6 months. Regarding both methods, there were no significant results at six months after training. However, another study showed that learning through the video self-instruction method resulted in higher retention compared to the group using the classroom instruction model (Moon & Hyun, 2019). Nurses experienced significant change in values before and

after receiving self-directed videos and simulations (Nurachman & Sansuwito, 2024). However, there was no significant difference between the two groups (Sugiyanto *et al.*, 2020). This indicates that the pre-test and early-assessment scores improved significantly, and the self-instruction video group performed better than the traditional classroom group. The scores also decreased at six-month post-training, and better retention was shown in the self-directed video group compared to the conventional classroom group. This may be due to the self-instruction video group being able to access the video material at any time during the study period, whereas the traditional classroom group only accessed the material once during the training period (Sturny *et al.*, 2021).

Similarly, the mean skill and knowledge scores fell at 3 months post-training, although chest compression performance after 3 months of training remained positive compared to the first post-test but was not significant (Partiprajak & Thongpo, 2016). The knowledge and skills scores tended to increase immediately after training and decrease at 20 weeks after training (Seol & Lee, 2020). In the process of the study, the demonstration group was given a hands-on explanation of basic life support by the instructor. During the activity process, students can actively ask questions and try directly and are given feedback by the instructor. So that the results showed there was a difference in median retention in the demonstration group with the self-direct video group, where the demonstration median value was higher in each measurement. After four weeks and six weeks of training, the skill and knowledge scores decreased. The retention scores were measured sooner in order to detect the students' knowledge and skills sooner. On average, from 2 weeks after the training, students were less precise in performing BLS measures such as 'time to check breathing', 'ventilation volume', 'compression depth' and 'compression frequency' skills correctly. And there will be decreased retention of skills and knowledge at four months after training (Charlier *et al.*, 2020).

The retention can also be maintained through frequent exposure to a case. Compared to the demonstration group, the self-directed video group should have the opportunity to continue learning independently and be exposed to the CPR video (Han *et al.*, 2023). However, not only does personal motivation to learn correlate with exposure, but also retention of skills and knowledge (Lee *et al.*, 2016). During the research process, respondents only watched the video once or twice during the study. Therefore, students cannot receive good basic life support without the teacher's help (Pande *et al.*, 2014). In the present study, the training lasted for two hours for the demonstration group, with fifteen minutes of theory, fifteen minutes of demonstration, and ninety minutes of simulation self-practice. The training was given with enough time for participants to understand the material and practice basic life support independently. The quality of CPR improved with the duration of training. A previous study showed that 180 minutes of training with 100 minutes of independent practice had better CPR quality than 120 minutes of training and 70 minutes of independent practice (Lee *et al.*, 2016). In this study, self-paced CPR was provided for 90 minutes, allowing first-year students to improve their CPR skills and knowledge. The ability of subjects to learn can be enhanced with the use of appropriate media. The conventional case method using mannequins has been shown to improve patients' CPR skills. It is also associated with more opportunities to apply skills in situations that have been made as similar to the real world as possible, as is done with simulation demonstration techniques. Repetitive practice methods and simulated actions can help improve the ability of the responder (Pramestutie *et al.*, 2023). This suggests that skill retention is gradually decreasing. However, the decline value gets smaller after six weeks of decline (Alharbi *et al.*, 2024).

One of the disadvantages of self-directed video learning is that less intelligent learners will experience greater learning difficulties, and clever learners will become smarter because there is little interaction between each other (Sugiyanto *et al.*, 2020). Lazy learners will experience learning difficulties because they cannot expand their abilities or knowledge (Wahyuningsih *et al.*, 2022). Simulation learning, on the other hand, is a commonly used method in health teaching. It utilises situations similar to the real world to provide an understanding of congruence. Some students are still confused about determining the right material, so they need input from others (Suwanpaibroj *et al.*, 2020). Both approaches have advantages and disadvantages. With the Self Direct Video method, respondents have the ability to learn independently and have the ability to learn anytime and anywhere to replicate basic life support activities by playing the learning video repeatedly. The weakness of the self-direct video method is that the quality of skills acquired during learning is difficult to identify and equalise, as each person has a different perception of what is seen and learnt (Indri *et al.*, 2018). During the research process, there was no instructor feedback session for the Self-Direct Video group. As a result, it was impossible to know whether the activities imitated through the videos were correct or incorrect.

Understandably, the demonstration group will have first-hand experience of the topic being studied. Therefore, the learning process will be more effective if aided by hands-on props rather than just watching videos or listening. The way a person gets new information has an effect on how well they retain the information. In a person's mind, experiences shape knowledge and skills. People who learn by reading will only absorb ten per cent of the information, while people who learn by talking and remembering information will have ninety per cent of the experience.

Limitations

The researchers were not able to control how many times the respondents repeated watching the video in the 3 days given. In addition, the interaction between the control and treatment groups during the 12-week assessment was not controlled by the researcher, which allowed the exchange of information from each group.

CONCLUSION

The results showed that there was a significant difference in knowledge and skills between the self-direct video group and the demonstration group. Maintaining the demonstration method and adding self-directed video to the learning approach in basic life support training for students will improve learning outcomes. To maintain retention of knowledge and skills, nurses should always update their knowledge through training. The findings also have implications for Indonesia, a country with a dense population and not much socialisation of basic life support for the community, considering the impact of providing first aid in cardiac arrest outside the hospital can increase life expectancy. Nursing students as part of the community can be at the forefront of providing services and improving public health. Health workers at primary health centres should consider interventions to socialise first aid for cardiac arrest with basic life support through videos to make it easily accessible to the community. Further research must be conducted to study the retention of knowledge and skills, specifically focusing on controlling the number of video views independently by students. Additionally, exploring alternative learning methods for skill retention must be studied. Future studies must examine skill retention following community-based training sessions, supplemented by social media campaigns on basic life support, to assess the impact of these interventions on a broader population.

Conflict of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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