

## Supplementary materials

**Table 1. Summary of articles.**

<b>Authors</b>	<b>Aim of Study</b>	<b>Important Findings</b>
Blewer et al. (2020)	To assess the efficacy of mobile application (mAPP) as a learning tool for laypersons in enhancing their CPR performance skills	Combining digital and traditional instructional techniques to enhance CPR training is crucial to improving layperson CPR proficiency.
Nas et al. (2019)	To investigate the efficacy of CPR training using the Life Saver guide application to enhance public knowledge and understanding of first aid procedures in cases of cardiac arrest.	The training offers valuable information on innovative CPR training techniques, the factors that affect CPR performance, and its lasting effects on attitudes toward resuscitation. CPR training that focuses on practical application has proven to significantly improve public awareness and readiness to provide first aid in cases of cardiac arrest.
Beskin et al. (2016)	To assess the comparative efficacy of short videos and traditional classroom instruction for CPR compression training focused on chest-only techniques in adolescent individuals.	Research has demonstrated that providing concise CPR video training can significantly improve the efficiency and speed at which high school students perform CPR techniques. Unlike traditional classroom training, which typically only improves compression depth, brief educational sessions effectively enhance CPR response. Nevertheless, this underscores the importance of hands-on psychomotor training to ensure the quality of CPR delivery.
Panchal et al. (2014)	To assess the effectiveness of ultra video as a learning medium for laypeople in enhancing their response and CPR skills.	When individuals undergo training using instructional videos, they may experience improvements in their ability to respond quickly, compress at the right speed, and deliver high-quality compressions. Brief CPR training videos can effectively serve as instructional tools in public spaces, potentially increasing the rate of bystander response in performing CPR during cardiac arrest emergencies.
Galindo Neto et al. (2023)	To assess the efficacy of instructional videos in enhancing the knowledge and proficiency of individuals with hearing impairments in Cardiopulmonary Resuscitation (CPR).	Educational videos and live demonstrations on cardiopulmonary resuscitation (CPR) have been proven to be highly effective in improving the CPR knowledge and skills of both laypersons and individuals who are deaf. These instructional tools, which

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		include practical CPR demonstrations and educational lectures, are widely recognized as valuable approaches for training and educating the public in CPR-related skills and knowledge.
Blewer et al. (2016)	To conduct a comparative analysis of CPR proficiency among laypersons, the study will assess individuals who have received CPR training solely through instructional videos without the use of a mannequin and those who have been trained through video instruction in combination with hands-on practice using a mannequin.	Training incorporating videos and mannequins produces better quality results than training using videos without mannequins.
Lin et al. (2021)	To assess the impact of synchronous online versus face-to-face cardiopulmonary resuscitation (CPR) training on the quality of chest compressions in a manikin model.	AVF devices can effectively replace in-person chest compression training during synchronous online training. This approach is feasible for delivering comprehensive bystander CPR chest compression training.
Nord et al. (2015)	To compare the practical proficiency in Cardiopulmonary Resuscitation (CPR) and the willingness to perform CPR after 30 minutes of mobile application (app)-based training versus 50 minutes of DVD-based training.	A comparative assessment showed that the group engaged in DVD-based CPR training for 50 minutes exhibited superior CPR skills compared to the group undergoing application-based training for 30 minutes. Nonetheless, both groups displayed a similar level of willingness to engage in life-saving endeavours.
Ali et al. (2019)	To compare the efficacy of video-based CPR training with traditional instructor-led CPR training for lay people.	Video-based CPR training has been found to reduce response to compression time by 35% compared to traditional instructor-based training.
Lee et al. (2023)	To assess the effectiveness of CPR training via conventional methods versus a smartphone application (Heros-Remote) in improving the quality of chest compressions.	CPR training using Heros' remote application has shown non-inferiority to conventional training methods regarding CPR quality. Participants in CPR training using the application have reported high satisfaction, indicating its effectiveness as a learning tool.
Ghazali et al. (2023)	To evaluate the impact of CPR training using simulation methods (with or without a mannequin) on improving CPR performance abilities and skills.	CPR training using a mannequin has been shown to improve CPR skills and quality. The simulation method has proven to be effective in teaching CPR to laypeople.

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Soeli et al. (2023)	To investigate the effect of CPR training combined with simulation methods and butterfly hug therapy on enhancing individuals' abilities to provide first aid in heart attack cases resulting from disasters.	A marked improvement in bystander CPR performance during selected cardiac arrest scenarios following simulated bystander CPR and butterfly hug therapy. The median score showed a notable increase and further analysis revealed a significance value of 0.000 ( $p < 0.05$ ).
Wanner et al. (2016)	To appraise the effectiveness of CPR training using video media to enhance the public's CPR skills.	CPR training, in combination with practical experience using a mannequin, effectively enhances layperson CPR skills.
Chien et al. (2020)	To investigate the efficacy of CPR training methods; comparing traditional and mixed techniques about compression depth and overall CPR quality.	The utilization of mixed methods in CPR training has revealed that the quality of CPR remains consistent with traditional training methods. It was established that the mixed training approach and the conventional method in assessing layperson CPR skills, depth, and overall quality of CPR performance are equal.
Metelmann et al. (2021)	To assess the potential utilization of smartphone CPR applications as instructional tools to enhance public CPR proficiency.	The use of CPR applications on smartphones has the potential to enhance the quality of CPR performance. Providing a guiding procedure for users is essential to facilitate the development of these applications. Utilizing CPR applications as instructional tools is strongly recommended for enhancing the CPR skills of laypersons, enabling them to offer assistance during instances of cardiac arrest.
Fauzan et al. (2021)	To examine the impact of providing Basic Life Support (BLS) health education through video on the knowledge level of junior high school students.	Research indicates that utilizing video-based Basic Life Support (BLS) training has a substantial impact on the knowledge acquisition of high school students
Kuswanto et al. (2022)	To assess the level of hand-only CPR skills among high school students before and after an intervention and to evaluate the effectiveness of educational demonstrations in improving these skills.	Using the demonstration method in CPR education has proven effective in enhancing students' proficiency in delivering essential life support.
Wirasakti et al. (2020)	To compare high-quality CPR with CPR training using multimedia learning methods..	Using multimedia in CPR training has improved chest compression speed, depth, and overall quality with fewer interruptions. This method also helps increase

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		<p>community proficiency and knowledge in providing essential life support, promoting independence and the ability to offer appropriate assistance. Additionally, studies have found that CPR training videos can positively impact people's understanding of basic life support procedures. Using the multimedia CPR method for training can enhance skills in performing chest compressions and reduce interruptions, resulting in higher-quality CP</p>
<p>Maria &amp; Wardhani (2023)</p>	<p>To assess the impact of BLS education through simulation methods on enhancing community knowledge and skills in performing essential life support</p>	<p>There is a noticeable increase in community knowledge and skills in providing essential life assistance, a testament to the community's progress and commitment to helping according to their competence</p>
<p>Maulidya et al. (2022)</p>	<p>To investigate whether providing Resuscitation with Jumpstart (RJP) training videos affects increasing adolescent knowledge.</p>	<p>Cardiopulmonary resuscitation training videos can influence respondents' knowledge of carrying out essential life support.</p>