

# AVAILABLE EDUCATIONAL TOOLS AND METHODS FOR CAREGIVERS OF INFANTS AND YOUNG CHILDREN FOR DEMONSTRATING COMPETENCE ON CPR: A SCOPING REVIEW

**AUTHORS**  
Koralia A. Michail<sup>1</sup>, Dionysia Tsoukala<sup>2</sup>, Konstantinos Petsios<sup>3</sup>.

**AFFILIATIONS**  
1. Cyprus University of Technology, Cyprus; 2. Linnæus University, Sweden; 3. National and Kapodistrian University of Athens, Greece

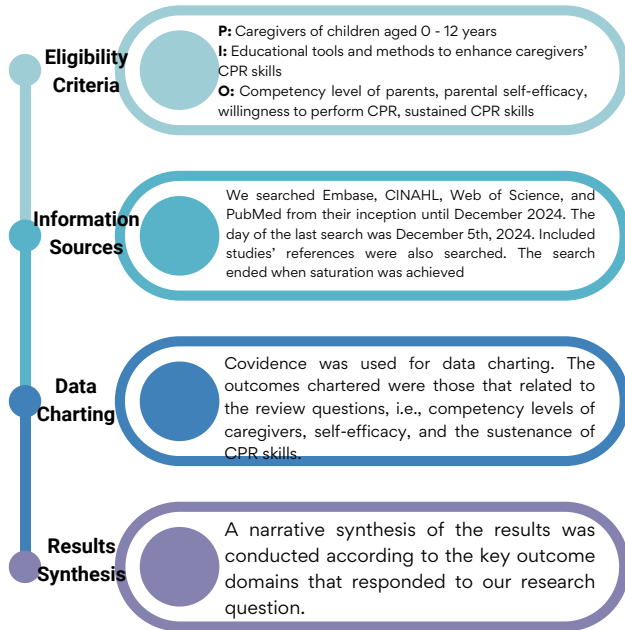
## INTRODUCTION

Out-Hospital Cardiac Arrest (OHCA) outcomes differ, according to the timely initiation of CPR. Delayed initiation has been associated with poor neurological outcomes, whereas when a bystander is present, higher rates of Return of spontaneous circulation (ROSC) and better outcomes have been observed. Caregivers of children often serve as first responders. Thus, caregivers need to be able to act properly and have competence in resuscitation skills.

## OBJECTIVE

This scoping review aimed to gather available educational tools and methods for the education of caregivers of young children, providing competency in CPR skills. The research question that guided the review was, “What are the existing tools and methods that reinforce children’s caregivers’ education and skills in paediatric CPR?”

## METHODOLOGY



## RESULTS

We imported 592 studies for screening, and after removing duplicates, we screened 448 studies. We sought to retrieve 73 of those studies and assessed their eligibility. 52 studies were excluded. We reported the reasons for exclusion (PRISMA flowchart on QR). The review encompassed a total of 21 studies. Figures 1 and 2 describe the tools used and the outcomes of interest, respectively, for the included studies. Figure 3 depicts the results of the included studies corresponding to the research question, while Figure 4 presents the synthesis of the results.

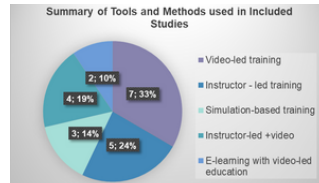


FIGURE 1



FIGURE 2

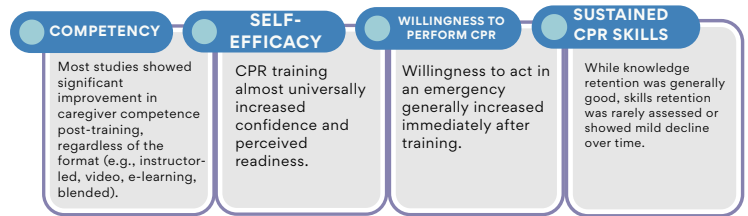


FIGURE 3

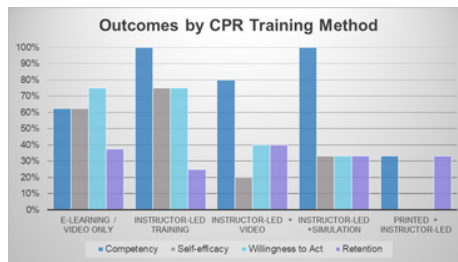


FIGURE 4

## CONCLUSION

- Instructor-led and simulation-based training consistently showed better skill performance and retention.
- Video-based only education often boosted knowledge and confidence, but not always skill proficiency, unless combined with hands-on practice.
- Self-efficacy and confidence generally improved post-training across most formats.
- Newer studies conducted after 2020 tend to emphasise the use of simulations and feedback mechanisms, which improve real-time performance.
- CPR training enhances preparedness and genuine inclination to intervene, especially when supplemented with practical or emotional conditioning.
- Continuous training or refresher courses may be essential, as CPR skills deteriorate more rapidly than knowledge, and the majority of studies lacked subsequent evaluations. Long-term retention and real-world application were poorly studied or self-reported in most studies.
- Innovative interactive learning techniques, such as virtual reality (VR), are currently employed for CPR training among healthcare professionals, with encouraging results (Trevi,2024). It is imperative to investigate its application to the parent population.

## REFERENCES

