CPR training without an instructor: development and evaluation of a video self-instructional system for effective performance of cardiopulmonary resuscitation.

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Abstract
Traditional classroom-based instruction of cardiopulmonary resuscitation (CPR) has failed to achieve desired rates of bystander CPR. Video self-instruction (VSI) is a more accessible alternative to traditional classroom instruction (TRAD), and it achieves better CPR skill performance. VSI employs a 34-min training tape and an inexpensive manikin. VSI combines simplified and reordered content focusing on the delivery of one-rescuer CPR with the 'practice-as-you-watch' approach of an exercise video. Performance of CPR skills immediately following VSI was compared to performance immediately following TRAD using an instrumented manikin, a valid and reliable skill checklist, and an overall competency rating. Compared with TRAD subjects, VSI subjects performed more compressions correctly (P < 0.001), more ventilations correctly (P < 0.001), and more assessment and sequence skills correctly (P < 0.001). TRAD subjects delivered twice as many compressions that were too shallow, and underinflated the lungs twice as often. VSI subjects were rated 'competent' or better 80.0% of the time, compared with TRAD subjects, who achieved this rating only 45.1% of the time (P < 0.001). TRAD subjects were rated to be 'not competent' in performing CPR nearly 10 times more often than VSI subjects (P < 0.001). Subjects 40 years of age and older performed better after VSI than after TRAD. Superior skill performance among subjects exposed to VSI persisted 60 days following training. VSI has the potential to reach individuals unlikely to participate in TRAD classes because of its greater convenience, lower cost, and training in about 0.50 h compared with 3-4 h for TRAD classes.

Comment in
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