

Voice feedback exercises after video instruction are necessary to ensure acquisition of quality basic life support skills in a self-learning station.

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KEYWORDS

Basic Life Support; self-learning; skill learning.

Introduction

International resuscitation guidelines encourage short video/computer self-learning courses. We assessed the learning efficacy of a video followed by voice feedback exercises on acquisition of Basic Life Support (BLS) skills in a self-learning station and explored the impact of mediating variables.

Methods

One hundred and twenty-five pharmacy students were trained using learning-while-watching video instructions (Mini Anne™, Laerdal, Norway) followed by voice feedback exercises (Resusci Anne Skills Station™, Laerdal, Norway). Students' characteristics were registered before training and the proportion of students with adequate BLS skills was measured at baseline, after video training and after subsequent voice feedback training.

Results

Complete datasets were obtained for 104 students, 21 datasets were lost due to incomplete recording. After video training, compression depth ≥ 50 mm was achieved in 36/104 students, compression rate 100-120/min in 77/104, ventilation volume 400-1000 ml in 44/104 and complete release < 5 mm in 40/104. Compared with baseline results, only rate (29/104 vs. 77/104) and ventilation volume (8/104 vs. 44/104) improved. After subsequent training with voice feedback the proportions were: compression depth 92/104, compression rate 77/104, ventilation volume 74/104 and complete release 58/104. Compared with the skill level after video training only compression rate did not further improve. Male gender was associated with better compression depth at baseline and after the video. After voice feedback exercises females improved compression depth to the level of males.

Conclusions

Although in a self-learning station practice-while-watching video training may be useful to introduce new skills, combining it with further voice feedback exercises is required for the majority of students to achieve BLS quality according to international guidelines. Furthermore, the training effect of a voice feedback exercise is able to remove pre-training differences between genders.