



2-minutes training with visual feedback significantly improves CPR quality in lay-rescuers



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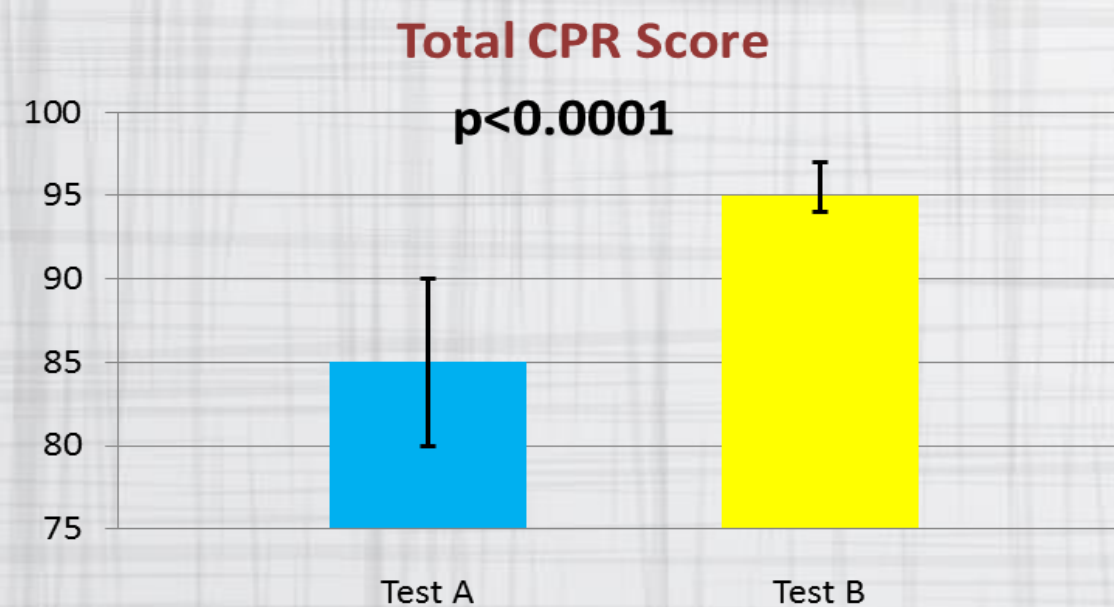
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Purpose

It has already been demonstrated that CPR feedback devices improve CPR Quality during training. We wanted to assess whether 2-minutes training with visual feedback was sufficient to obtain a significant improvement in CPR quality.

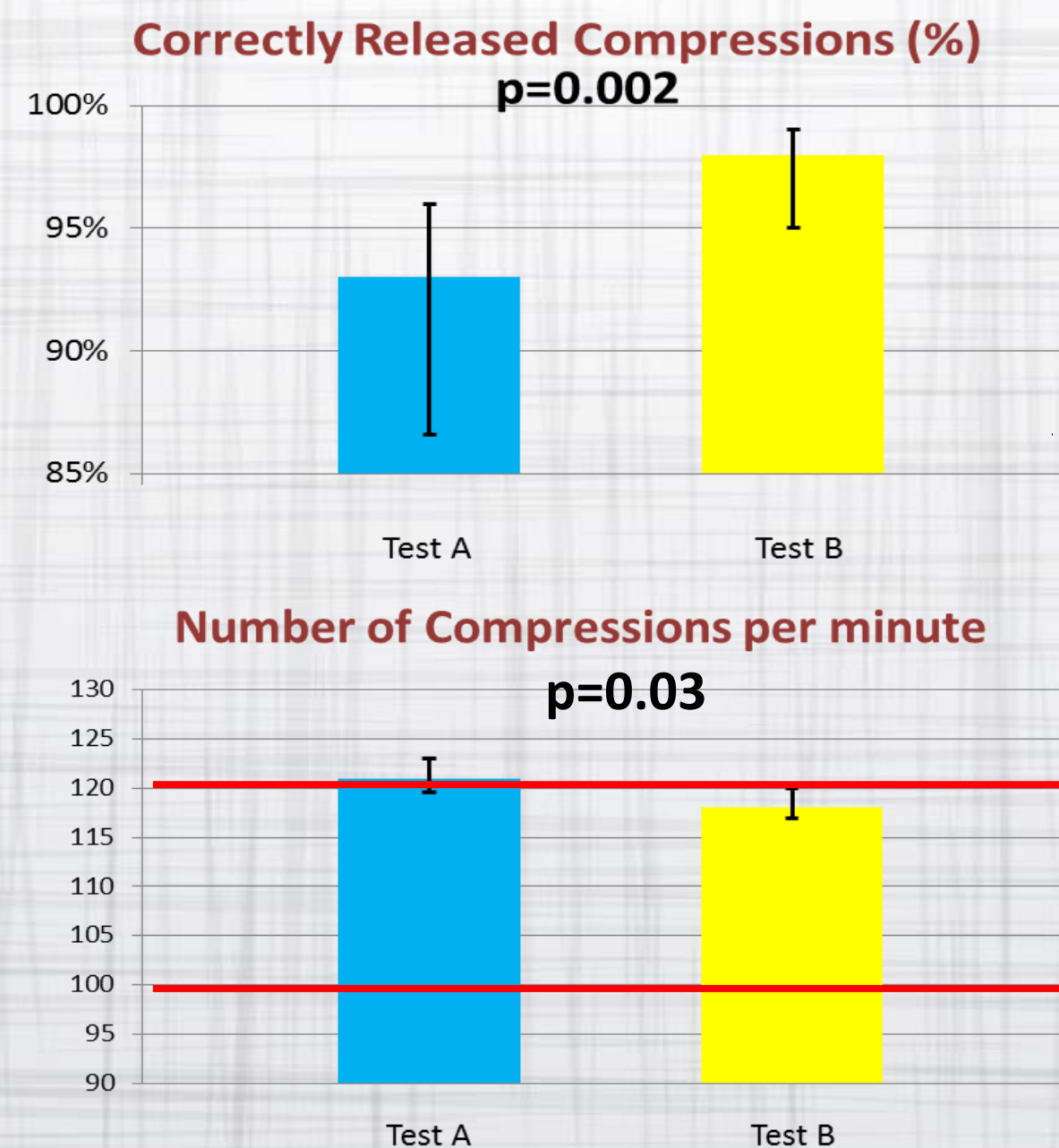
Methods

We evaluated 1-min compression-only CPR using a Resusci Anne SkillReporter manikin (Laerdal Medical) at the end of a 5-hour BLS-D course for lay-rescuers (performed according to the 2010 ILCOR Guidelines) before (test A) and after (test B) a 2-minutes training with a real-time visual feedback by Resusci Anne Wireless SkillReporter software. The measured parameters were: Total CPR score (a comprehensive scoring algorithm developed by Laerdal and members of the AHA ECC Subcommittees), number of compressions, percentage of correctly released compressions, compression mean depth and percentage of compressions with correct hand position.



Results

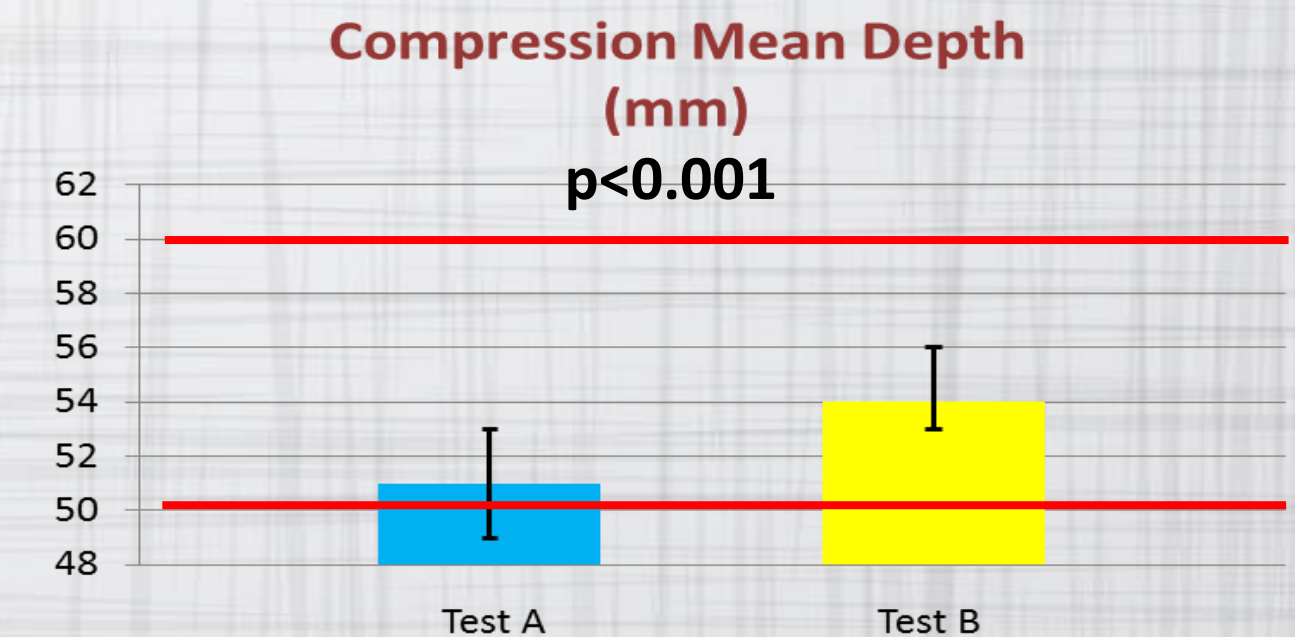
Our population comprised 113 lay-people (50.4% females; mean age 31 ± 12 years; mean weight 68.2 ± 13.1 kg; mean height 172.5 ± 9.1 cm; mean BMI 22.8 ± 3.3 kg/m² - table). Sex, weight, height and BMI were not significantly related to Total CPR Score. From test A to test B, there was a statistically significant improvement in all the parameters: Total CPR Score (85 % (95%CI, 80-90) vs 95 % (95%CI, 94-97), $p<0.0001$), number of compressions (121 (95%CI, 119.6-123) vs 118 (95%CI, 117-120), $p=0.03$), percentage of correctly released compressions (93 % (95%CI, 86.6-96) vs 98 % (95%CI, 95-99), $p=0.002$), compression mean depth (51 mm (95%CI, 49-53) vs 54 mm (95%CI, 53- 56), $p<0.001$) and percentage of compressions with correct hand position (100 % (95%CI, 100-100) vs 100 % (95%CI, 100-100), $p=0.01$).



Population Characteristics	
Characteristic	Value
Age (years)	31 ± 12
Males	49.6%
Weight (Kg)	68.2 ± 13.1
Height (cm)	172.5 ± 9.1
BMI (Kg/m²)	22.8 ± 3.3
Sex, weight, height and BMI were not significantly related to Total CPR Score.	

Conclusions

2-minutes visual feedback approach significantly improves the overall quality of CPR, and it is sufficient for achieving goals in compression rate and compression mean depth of ILCOR 2010 Guidelines. This approach should be used on every BLS-D course.



All Authors report no disclosure