

$p=0.72$ ). There was a significant difference in average compression depth (practice 48.20mm vs emergency 41.42mm;  $t(16)=2.24$ ,  $p<0.05$ ). During emergency use, the majority depth was in the  $<40$ mm range (practice 10.88% vs emergency 43.25%;  $t(15)=-3.47$ ,  $p<0.01$ ). Majority depth during practice was in the optimal range of 40–60mm (practice 83.69% vs emergency 49.13%;  $t(15)=4.21$ ,  $p<0.01$ ). Majority rate during practice was in the optimal range of 100–120 (practice 94.69% vs emergency 64.82%;  $t(16)=3.64$ ,  $p<0.01$ ). Majority rate during emergency use was above the optimal range (practice 4.0% vs emergency 23.76%;  $t(16)=-2.66$ ,  $p<0.05$ ).

**Conclusion** The CPRcard helped guide CPR performance considering that on average rate and depth were kept within standard. Nonetheless, CPR quality during emergencies slightly worsened vs. training. Fatigue induced leaning was possible as emergency CPR duration was longer (average time for practice 136.18 seconds vs emergency 351.06 seconds;  $t(16)=-3.07$ ,  $p<0.01$ ).

**Conflict of interest** None.

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## Cardiac arrest

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### POSITIVE SHIFTS IN KNOWLEDGE, ATTITUDES AND PRACTICE AFTER A 60-MINUTE CPR-AED TRAINING

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**Background** Training and motivating more laypeople to respond to out-of-hospital cardiac arrest (OHCA) is associated with improved OHCA survival rates. This study involved measuring the change in knowledge, attitudes and practice after a 60-minute CPR-AED training.

**Method** We administered pre-/post-training surveys to 337 participants who underwent CPR/AED training. McNemar's and paired t-tests were used to analyse responses. Compression performance was measured during 2 compression performance rounds on the same day.

**Results** Favourable shift in knowledge was observed in post-training survey ( $p<0.001$ ) as follows: 'First thing to do...' (pre 48.2% vs post 90.9%,  $p<0.0001$ ); 'Correct number to dial...' (pre 88.4% vs post 99.7%,  $p<0.0001$ ); '...after getting dispatcher on the phone...' (pre 65.5% vs post 96.0%,  $p<0.0001$ ); '...how deep to compress' (pre 47.0% vs post 96.4%,  $p<0.0001$ ); '...how fast to compress' (pre 14.7% vs post 56.1%,  $p<0.0001$ ). Attitudes improved towards CPR and AED use where 71.5% and 72.5% said 'I don't know/unlikely/very unlikely' to perform CPR and use AED at pre-training then improved to 79.5% and 82.2% would 'likely/very likely' afterwards. In CPR practice, average optimal CPR compression depth improved from 70% to 74.9% ( $t$

(336)=-3.74,  $p<0.001$ ); however, compressions at  $>120$  per minute increased from 22.5% to 31.1% ( $t(336)=-5.72$ ,  $p<0.001$ ).

**Conclusion** We observed favourable shifts in knowledge, attitudes and practice for CPR-AED use amongst our participants that were likely due to undergoing the brief CPR/AED training. The increased average rate observed in the second round of compressions could be an effect of fatiguing.

**Conflict of interest** None.

**Funding** Ministry of Health, Singapore.

## COVID-19

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### 'SEE US AS HUMANS. SPEAK TO US WITH RESPECT. LISTEN TO US.' A QUALITATIVE REPORT ON AMBULANCE STAFF REQUIREMENTS OF LEADERSHIP WHILST WORKING DURING THE COVID-19 PANDEMIC

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**Background** The COVID-19 Ambulance Response Assessment (CARA) study was a prospective, longitudinal survey of UK ambulance staff providing both direct and remote patient care during the first wave of the COVID-19 pandemic. CARA aimed to evaluate perceptions of preparedness and wellbeing, and to collect staff suggestions to benefit working practices and conditions.

**Method** Three online questionnaires were presented, coinciding with the acceleration, peak and deceleration phases of the first COVID-19 wave. Inductive thematic analysis was employed to represent 14,237 free text responses from 3,717 participants to 18 free-text questions overall.

**Results** A thematic framework was constructed from across the variety of questions that demonstrated participants' objectives to minimise infection risks, maintain service delivery and support their own wellbeing. Additionally, the following requirements of national and organisational leadership were identified as enablers to achieving those objectives.

Evidence-based policies, that are consistently applied, clearly communicated and accompanied by adequate training improve confidence and allay anxiety. Demonstrating learning, planning, and astute use of resources will further benefit trust in leadership and to support staff wellbeing there must also be meaningful dialogue and demonstrable empathy with further appropriate preventative and therapeutic interventions enabled.

**Conclusion** Inclusive, compassionate leadership will support both ambulance staff wellbeing and service delivery whilst working within pandemic conditions. New working practices should be introduced with transparency and staff experiences of implementing changes should be heeded by leadership to enable further policy development.

**Conflict of interest** None.

**Funding** College of Paramedics.