Cardiopulmonary Resuscitation training by Peer to Peer trainers yields Bystanders Trained to Provide High Quality CPR

The quality of bystander CPR training is known in the United States. One major mechanism of this training is through the American Heart Association's CPR in Schools Program. However, the quality of CPR provision following this training has not been assessed. The objective of this study was to evaluate the effectiveness of CPR training (depth and rate of chest compressions) of lay bystanders following training through the CPR in Schools: University Program.

During the 2017 academic year, the effectiveness of teaching lay bystanders Hands- only CPR, through the CPR in Schools – University Training Program, was examined. 120 undergraduate students (without prior CPR training) from The Ohio State University receiving AHA Hands-Only CPR training. Following training, students were given two minutes to perform CPR on Laerdal Little Anne CPR Training manikins where data was collected on performance. Data was collected using Laerdal Skillreporter software on the quality of their compressions, including rate and depth. Data was evaluated in STATA 12 for descriptive statistics.

The training began in September 2017. Interns held group trainings where the participants received instruction in small groups on CPR. 120 people were trained, and all but 101 participants were disqualified from the study based on past education in CPR, failure to give contact information, etc. After training, preliminary data was collected using the Laerdal Skillreporter on CPR rate, depth and compression fraction.  On the preliminary analysis, a mean CPR rate of 108.126 compressions per minute, mean depth of 52.359 millimeters, and a mean compression fraction of 64.136%  was observed.

The University Program training method can be adapted to train individuals in higher quality CPR using the preliminary analysis alongside additional data analysis to gage where the instruction has neglected specific skills. Specifically, the analysis will determine whether the University Program lacks adequate training of rate, depth, or compression fraction. Future work in the coming months will be directed at examining retention of knowledge over time.