

## Introduction

The objective of this pilot study was to investigate the feasibility, knowledge gains, and attitude changes of performing CPR using the "Pillow CPR" hands-only training technique.

## Aims and Objectives

**Aim I:** To determine the feasibility of using a novel low-resource training device "Pillow CPR" to teach Hispanic adolescents in a community setting.

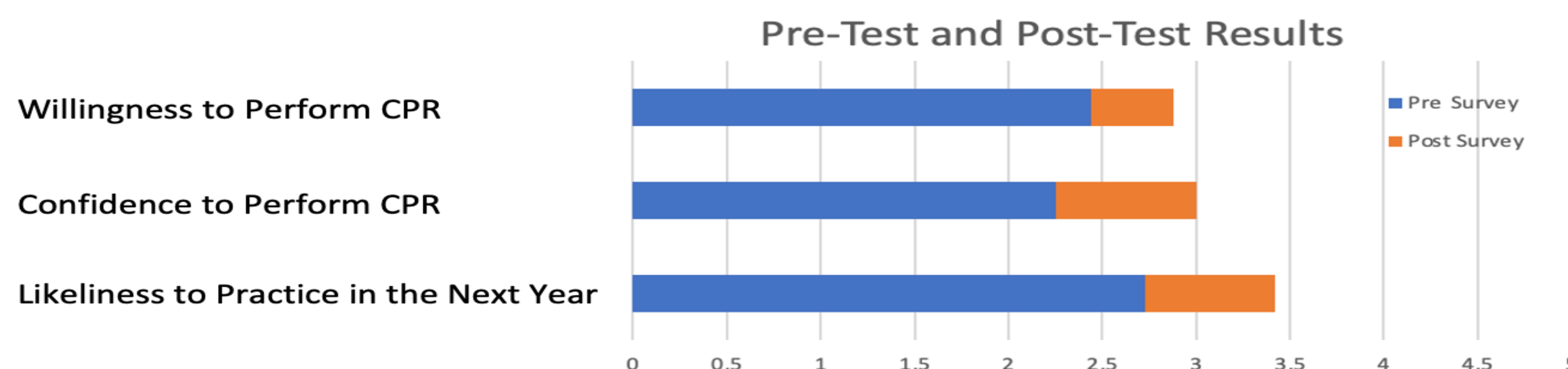
**Aim II:** To determine the gain in knowledge, skills, and confidence in performing compression-only CPR when taught with the "Pillow CPR" technique.

## Methods

In collaboration with a local community organization program, we offered a hands-only CPR training session for adolescents. Participants watched a CPR demonstration followed by interactive CPR practice with medical student mentors using the "Pillow CPR" technique. A customized pillow case was used to show hand position and review information; each participant kept their pillowcase to support future practice. Using a one-group pre/post-test design, participants (n=16) completed questionnaires which included questions that evaluated CPR knowledge and opinions. A five-point Likert scale was used to assess attitudes/knowledge about CPR; as well as confidence and willingness to perform CPR.

## Results

In the pre-test 14 participants (87.5%) indicated no prior CPR training and supported the belief that all adults should be trained in CPR. Post-test results indicated that knowledge regarding compression depth increased 34% (9 to 15) while speed of compression increased 44% (5 to 12). In a paired analysis of pre/post results: willingness to perform CPR increased 25% (gain=0.69, pre test=2.73, p=0.011), confidence to perform CPR, 33% (gain=0.75, pre test=2.25, p=0.018), likelihood to practice in the next year, 18% (gain=0.44, pre test=2.44, p=0.110).



## Conclusions

Adolescent participation in hands-only CPR training using a low resource device for practice resulted in knowledge gains and improved attitudes in the areas of willingness and confidence to perform CPR, and skills practice likelihood. This pillow training method was feasible and provides an accessible and cost-effective means for providing CPR training for adolescents. Future plans include continuing to collect outcome measures of this pillow method for CPR training in greater numbers of adolescents in community settings.

## Event Pictures



## Pillowcase Design

### PILLOW CPR Adult & Child

**CHOKING**

- CHECK**  
Tap and shout  
Are they responding, moving or breathing?  
If not, they need CPR
- CALL**  
Call for help
- COMPRESS**  
Put the heel of 2 hands on center of chest  
Push fast 100 - 120 per minute  
Push hard. At least 2 inches deep  
For children ages 1-11 push less deep
- THRUST**  
Thrust sharply inward and upward
- IF THE PERSON BECOMES UNCONSCIOUS**  
Lay them down  
Call for help  
Perform CPR starting with compressions  
Look in the mouth after every 30 compression  
Remove any objects from the mouth

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### PILLOW CPR Infant (until age 1)

**CHOKING**

- CHECK**  
Tap and shout  
Are they responding, moving or breathing?  
If not, they need CPR
- CALL**  
Call for help
- COMPRESS**  
Put 2 fingers on center of the chest  
Push fast 100 - 120 per minute  
Push hard 1.5 inches deep  
Compress 30 times
- THRUST**  
Turn them face up  
Thrust 5 times on center of chest using 2 fingers  
Push down about 1.5 inches deep
- REPEAT**  
5 whacks on the back and 5 chest thrusts  
Call for help
- BREATHE**  
Tilt the head back, slightly  
Cover their mouth and nose with your mouth  
Give 2 small breaths, enough to make the chest rise slightly
- IF THE PERSON BECOMES UNCONSCIOUS**  
Lay them down  
Call for help  
Perform CPR starting with compressions  
Look in the mouth after every 30 compression  
Remove any objects from the mouth

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