

# Defining Lay Bystander's Knowledge, Attitudes, and Beliefs towards Cardiopulmonary Resuscitation Training and Performance

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## BACKGROUND

- Less than 30% of lay witnesses to cardiac arrest attempt cardiopulmonary resuscitation (CPR).<sup>1</sup>
- Understanding the public's perception of CPR training and performance is essential to inform future CPR training methods.<sup>2</sup>
- Little is known regarding layperson perspectives on CPR in context of the 2010 resuscitation guidelines and the development of hands-only CPR.

## OBJECTIVES

We sought to ascertain the general public's knowledge and awareness of CPR in context of the 2010 resuscitation guidelines and hypothesized that bystanders would feel more confident performing CPR when made aware of the new guidelines support for hands-only CPR.

## METHODS

Subjects participated in an hour-long semi-structured qualitative interview from 3/2011 to 8/2011. The interview script covered general questions designed to understand subject's perspectives on CPR training and performance. Following transcription, all responses were coded, processed and agreed upon with a mean kappa greater than 0.75, using Nvivo 9 qualitative analysis.

## RESULTS

- Fear of performing CPR incorrectly (43%) and lack of confidence with CPR skills (23%) were common reported themes among interviewees.
- When asked about hands-only CPR, 74% of the subjects had not heard of the new technique and 76% were unaware of the updated 2010 guidelines. When briefly educated about the 2010 guidelines, 76% felt more confident with performing CPR if they had the option of employing "hands-only" CPR (p<0.01).

## Subject Demographics

	Enrolled n=31	
Gender	Female gender	74.2%
Age	18-44	45.2%
	45-65	41.9%
	Over 65	12.9%
Race	White	67.7%
	Black	22.6%
	Other	9.7%
Education	High School or Less	61.3%
	College	29.0%
	No Response	9.7%
Prior CPR Training	No	38.7%
	Yes –within 2 years	22.6%
	Yes-3 to 5 years	9.7%
	Yes-6 to 10 years	16.1%
	Yes-10 or more	12.9%

## Aware of 2010 Guidelines

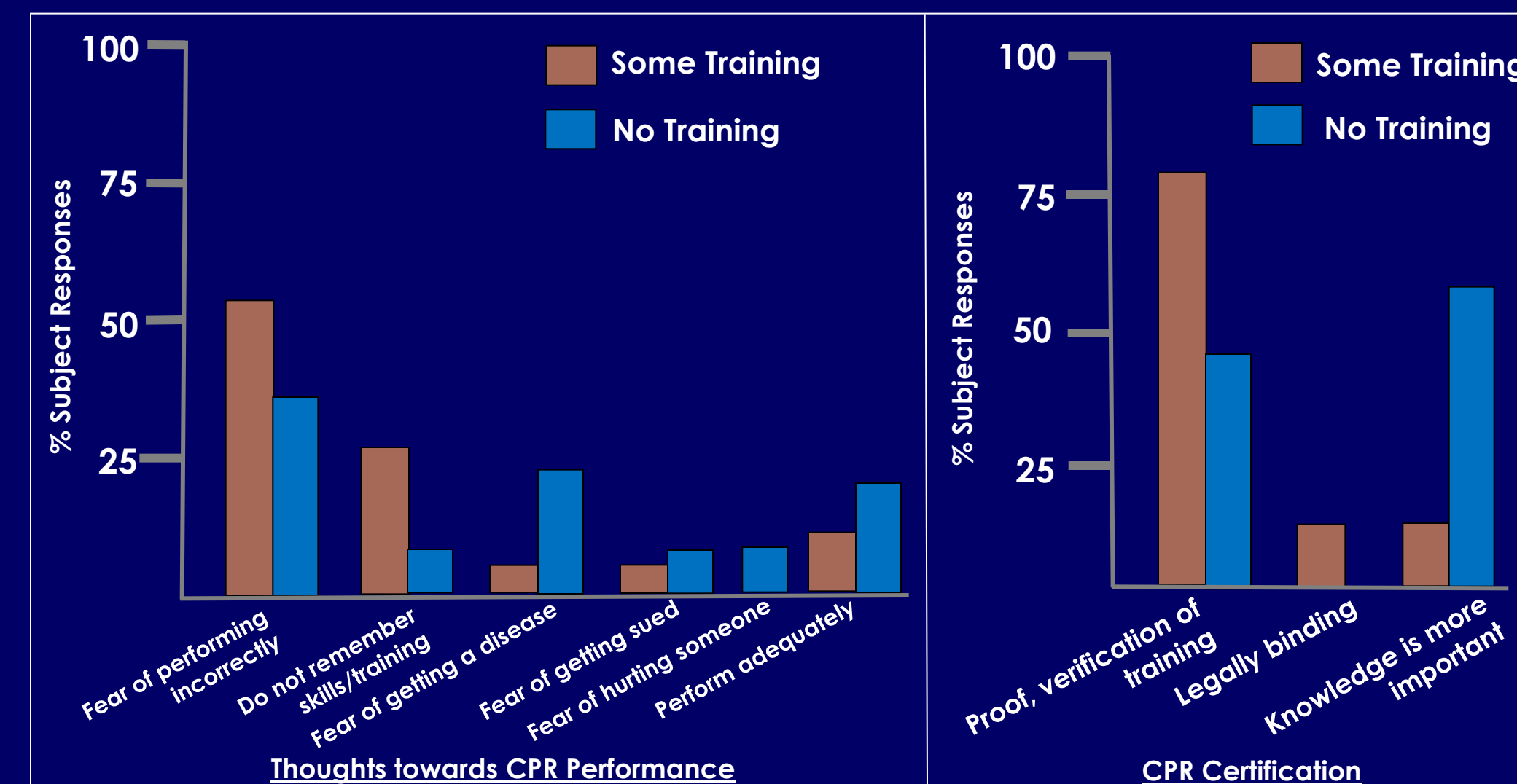
2010 AHA Guidelines:	CPR Training		
	<2 yrs:	>2yrs:	No Training:
Not aware:	71%	66%	100%
C-A-B:	29%	17%	0%
Hands-Only:	0%	17%	0%
<b>Aware of Hands-Only CPR:</b>			
Not aware:	57%	84%	92%
Adequately described :	43%	16%	8%
<b>Knowledge of Hands-Only CPR increased comfort with performing CPR:</b>			
Yes:	84%	84%	64%
No:	16%	16%	36%

## Interview Results

### Knowledge of CPR

Where did you learn about CPR:	Some Training:	No Training:
TV:	0%	92%
Course at Work:	32%	0%
Course at Volunteer/religious org:	42%	0%
Class at School:	26%	0%
<b>When do you perform CPR:</b>		
Heart Stops Beating/No breathes:	54%	32%
Heart Attack:	11%	11%
Choking:	12%	17%
Drowning:	4%	21%
Faints:	19%	21%

## Thoughts towards CPR



## CONCLUSIONS

- CPR trained individuals lacked confidence and retention of CPR knowledge, and were not aware of hands-only CPR and the 2010 resuscitation guidelines update.
- When informed about the option for hands-only CPR, individual's self-reported confidence increased significantly. This has implications for future public messaging surrounding layperson CPR and the need to promote hands-only CPR more broadly.

## REFERENCES

1. Sasson, C et al. *Circ Cardiovasc Qual Outcomes*. 2010; 3: 63-81.
2. Abella, BS et al. *Circulation*. 2008;117:704-709.



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