The Pillow Project: A low cost intervention with the potential for widespread application to enable training in the event of an infant choking and basic life support for prospective parents

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O L L S C O I L L U I M N I G H

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Background: Infant basic life support skills are not taught routinely to prospective and new parents across Europe and the United states. Very little research has been conducted on pregnant women and the provision of paediatric basic life support. Limited previous research has reported positive findings (Barry, 2015)*.

Aim: This study aimed to evaluate the impact of a self-instruction infant CPR kit on expectant parents. The kit included access to an e-learning training video and a novel low-cost infant pillow mannequin.

Design: A prospective cohort study with an uncontrolled pre- and post-test design was used following institutional ethical approval.

Setting: A four week cycle of antenatal education classes in a regional Maternity Hospital in Ireland.

Participants: A purposive sample of pregnant women and their partners attending the antenatal education classes.

Seed funding: EHS Faculty, University of Limerick

The pillow mannequin is a pillowslip designed to fit any standard sized pillow.

Measurements:

- (1) confidence in performing infant CPR
- (2) confidence in knowledge of infant choking treatment
- (3) ability to perform requisite skills, and
- (4) perceived acceptability of the infant pillow mannequin as a means of practise.

Results:

- (1) Greater confidence in infant CPR post-training
- (2) Greater confidence in infant choking treatment post-training

	Pre e-learning % (n)	Post e-learning % (n)
Confidence in treatment of choking		
Definitely not confident	41.7 (10)	8.3 (2)
Slightly confident	33.3 (8)	8.3 (2)
Average confidence	8.3 (2)	29.2 (7)
More than average confidence	12.5 (3)	37.5 (9)
Extremely confident	4.2 (1)	16.7 (4)
Confidence in giving CPR		
Definitely not confident	41.7 (10)	8.3 (2)
Slightly confident	25 (6)	4.2 (1)
Average confidence	20.8 (5)	29.2 (7)
More than average confidence	4.2 (1)	33.3 (8)
Extremely confident	8.3 (2)	25.0 (6)

Table 1: Confidence pre and post e-learning programme

Variable	Pre e-learning		Post e-learning		p	Z ^a
Confidence in...	Mean	S.D.	Mean	S.D.		
1. CPR	2.04	1.197	3.63	1.172	.001	-3.542°
2. Choking treatment	2.13	1.262	3.46	1.140	.001	-3.472°

Table 2: Comparison of 'confidence' means and S.D. pre and post intervention

Variable	% of actions carried out correctly
CPR	81.6
Choking	86.7

(4) The pillow mannequin was reported by expectant parents as being highly acceptable to them.

"The pillow worked very well. My 9 year old daughter joined me in practising the new skills. This is a good way for all family members to practice at home on what to do in the event of infant choking and infant CPR. Can be used as a game to teach other children what to do". Participant 37

"I definitely plan to review it on regularly and use my pillow case to practice so the steps remain fresh in my mind". Participant 22

Discussion and conclusion:

Results indicated that this was an acceptable and effective medium for training expectant parents in infant CPR and choking treatment.

The particular value of this training programme lies in the fact that the cost of both the e-learning training programme and infant pillow mannequin is very low, affording the potential for its widespread distribution to both developed and developing countries.

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*Barry, M. (2015) An evaluation of expectant parents knowledge, satisfaction and use of a self-instructional infant CPR kit, *Midwifery* 31(8):805-10.