

A Pilot Blended E-Learning and Practical Resuscitation Program for Healthcare Workers

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- ❑ Paediatric cardio-respiratory arrests are rare events, especially outside of paediatric centres and it is therefore essential for healthcare workers to have regular training in paediatric cardiopulmonary resuscitation (CPR) so they can respond appropriately in an emergency.
- ❑ Current paediatric CPR courses, such as Advanced Paediatric Life Support, are expensive and need staff to be released from normal duties for a considerable length of time.
- ❑ The aim of this project was to produce a blended paediatric resuscitation course where the knowledge would be delivered via e-learning and this would then be followed by a short psychomotor course to reinforce knowledge and skills.
- ❑ The course would enable clinicians who work in acute care settings with infants and children within the Western Child Health Network to be able to confidently and competently perform CPR according to national and international guidelines

HOWSE Julie¹, O'LEARY Fenton^{2,3}

1 Northern Sydney Central Coast Area Health Service (and previously Western Child Health Network)

2 The Children's Hospital at Westmead, Western Child Health Network

3 Disciplines of Emergency Medicine and Paediatrics and Child Health, University of Sydney

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- ❑ A two part course was designed using modified versions of a previously validated resuscitation e-learning program and the Children's Hospital at Westmead's short paediatric resuscitation course.
- ❑ The e-learning module covers basic life support, bag and mask ventilation, intraosseous access, rhythm recognition, safe defibrillation and resuscitation drugs. It is designed to be completed flexibly at the candidate's own speed and takes one to two hours in total.
- ❑ The face-to-face practical course has two segments: 30 minutes on communication skills in an emergency and 60 minutes on practical resuscitation skills using cases and a 'pause and discuss' format.
- ❑ The pilot program was run at two rural sites (Parkes and Bathurst) and one metropolitan (Mt Druitt). Improvements in candidates' knowledge were measured by their difference in pre and post test MCQ scores in the e-learning module. Participants were also asked to rate their level of knowledge, confidence and ability before and after the course using a Likert scale. The course itself was also evaluated by participant questionnaires.



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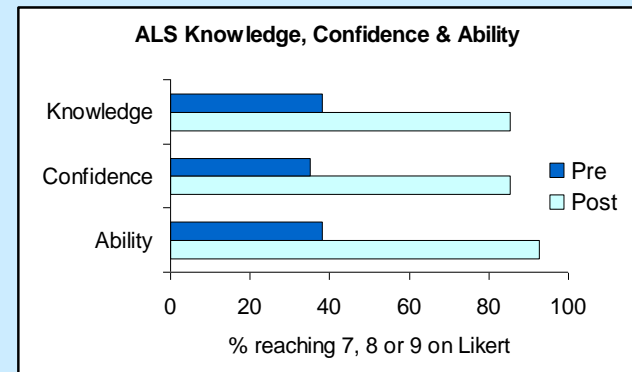
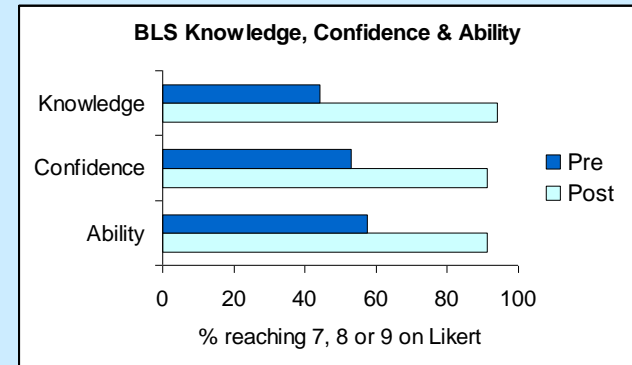
Conclusion

☐ 70 doctors and nurses participated the pilot program.

☐ The mean pre E-learning MCQ score was 15 (65 %) +/-3.63SD with a range of 6 to 22

☐ The mean post E-learning MCQ score was 21 (91%) +/-1.43SD with a range of 18 to 23.

☐ The participants self-rated using a Likert scale and identified significant improvements in all the measured survey responses (P<0.001)



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Participant responses:

- 100% found multidisciplinary nature of the learning group helpful
- 100% able to apply the knowledge and skills learnt to their clinical workplace
- 94% increased their knowledge of paediatric resuscitation
- 96% increased their confidence and practical skills

Comments:

- "The hands-on approach and branching off into small groups took away nervousness of doing hands-on in front of everyone"* (Nurse from Parkes)
- "I liked Resus4Kids because it is relatively short and repeatable. I think evidence would say that by repeating a module on resuscitation regularly, retention of information is more likely"* (Paediatrician from Bathurst)



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Participants identified significant improvements in their knowledge, confidence and ability in Basic and Advanced Life Support. Similarly pre and post E-learning MCQ scores demonstrated significant improvements. Participants particularly enjoyed the practical nature of the sessions.

Acknowledgments

- The Children's Hospital at Westmead team for their original e-learning and the initial practical session concept
- Garry Whitaker (Instructional Designer)
- Dr. Marino Festa (Technical Advice and Resus4Kids Trainer)

the **childr^{en}'s** hospital at Westmead