ORIGINAL RESEARCH ARTICLE

The Introduction of a Basic Life Support Course for Nurses and Doctors in a Rural Indian Setting: Was it Useful?

Elizabeth Smithson[1], Andy Whelan[2] and Ketki Pathak[3]

Leeds teaching hospital, Great George St, Leeds LS1 3EX, United Kingdom[1,2]

Abstract:

Compared with no intervention, evidence shows that survival to hospital discharge in patients who experience cardiac arrest is greater amongst those who receive basic life support (BLS). Whilst healthcare teams strive to prevent this from happening, inevitably it will occur when a disease presents too late or too rapidly for medical treatment to intervene. As such, cardiac arrest within hospitals are not rare events. The staff who most commonly face this situation in hospitals worldwide tend to be the most junior, due to the majority of their time being spent on hospital wards. The newly qualified healthcare professionals, junior doctors and nurses provide the front line in recognising cardiac arrest and delivering basic resuscitation. Their knowledge and skill set is essential in giving patients the best chance until senior staff can provide further guidance as to more complex treatment decisions. It is known that survival from a cardiac arrest can be three times higher when the arrest is attended by persons who are able to provide immediate resuscitation. Improving basic life support skills is an area that can improve outcomes when faced with cardiac arrest.

A BLS course was delivered in a large, busy, rural hospital in India. This paper explains the rationale behind and process of providing the course for junior doctors and nurses who routinely work on the intensive care unit (ICU). The qualitative feedback shows promising results and demonstrates there is support from healthcare professionals for further BLS courses.

Keywords:

Basic Life support, rural hospital, ICU

How to cite this article: Elizabeth Smithson, Andy Whelan and Ketki Pathak. The Introduction of a Basic Life Support Course for Nurses and Doctors in a Rural Indian Setting: Was it Useful? .Walawalkar International Medical Journal 2018; 5(1):33-38. http://www.wimjournal.com

Address for correspondence:
Dr.Andy Whelan,
Leeds Teaching Hospital, Great George St, Leeds LS1 3EX, United Kingdom,
Email: Drawhelan@doctors.org.uk, Mobile No: 00447805552039
Received date: 21/05/2018 Revised date: 25/06/2018 Accepted date: 15/07/2018
DOI Link: http://www.doi-ds.org/doilink/08.2018-34869633/

Introduction:

Disease burden per person in India has dropped by 36% from 1990 to 2016. However, non-communicable diseases are on the rise [1].Cardiovascular diseases have reached epidemic proportions worldwide. In India, coronary heart disease accounted for 32% of adult deaths in 2010-2013 [2].The growth of non-communicable diseases puts a continuing strain on healthcare services. All acute and chronic disease states ultimately culminate in cardiopulmonary arrest. Whilst healthcare providers aim to prevent this state from occurring, inevitably it will occur when a disease presents too late or too rapidly for medical treatment to intervene. It is known that the immediate initiation of bystander CPR can double or quadruple survival from out-of-hospital cardiac arrest [3, 5]. The importance of good quality CPR is essential [3]. Basic life support (BLS) provides a well-established, universally appropriate standard operating procedure in guiding good quality resuscitation. It has even been shown to have better outcomes than ALS in terms of survival to hospital discharge and 90-day survival post-discharge [4].

Utilising the extensive resources on the resuscitation council's website, a BLS course was designed and developed [3]. It was delivered separately to both nurses and junior doctors who work on the intensive care unit in the rural hospital. Each course lasted for one half-day. Whilst the onus remained focussed on practical simulation sessions, there were short seminars to educate and refresh core BLS principles. The seminars included an introduction to BLS and the algorithm; an overview on airway management; and the importance of good quality chest compressions.

The participants were split into smaller groups. They all rotated around three stations – one practising airway handling skills; one chest compression station; and one simulation station incorporating all components of the BLS algorithm.

Objectives:

- Improve awareness of the importance of BLS, specifically pertaining to early and good-quality chest compressions
- Enhance knowledge surrounding rationale behind BLS

- Provide a safe learning platform to practice BLS skills
- Improve confidence amongst new and junior staff to take the lead commencing BLS
- Ultimately, improve patient safety

Methods:

A qualitative pre-course feedback form was provided to the doctors who attended BLS. This was assessing levels of confidence when providing BLS and looked at whether they have had similar training. Another feedback form was distributed via survey monkey a few weeks after the course. This was assessing the usefulness and effectiveness of the course.

Pre-course questions:

1) Have you previously been on a Basic life support course?
2) Have you previously had an opportunity for formal Basic life support training in your career/medical school?
3) How confident with BLS are you?

Post-course questions:

1) How likely is it that you would recommend the Basic Life Support course to a friend or colleague?
2) How relevant is the material to your role?
3) How clear are you on the takeaways from the session?
4) How confident do you feel performing BLS after the course?
5) Do you think this is an important course all doctors should go on?
6) Would you like more of this type of course?
7) Do you have any other comments, questions, or concern.

Results:

Pre-course question results (12 candidates)

Questions	Response
Have you previously been on a Basic life support course?	100% of candidates stated they had not previously been on a Basic life support course
Have you previously had an opportunity for formal Basic life support training in your career/medical school?	100% declared they had no previous Basic life support training
How confident with BLS are you?	5 (42%) stated they were unconfident; 3 (25%) were moderately confident; 1 (8%) was confident; and 3 (25%) did not respond.

Table 1: Results of the pre-course survey

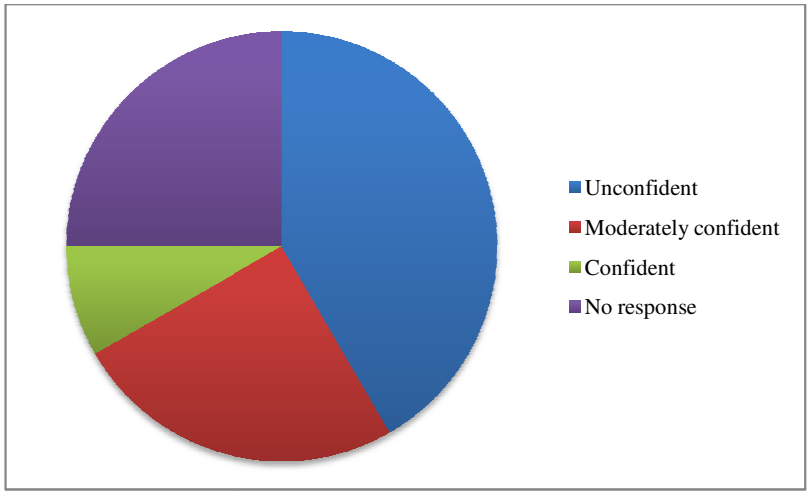

Figure 1: Confidence of participants prior to the BLS course

Post-course feedback:

Of the twelve candidates, a total of nine responded.

Question	Response
How likely is it that you would recommend the Basic Life Support course to a friend or colleague?	100% of responders would recommend the course to a friend.
How relevant is the material to your role?	88% of respondents felt it was extremely relevant to their work
How clear are you on the takeaways from the session?	100% of respondents were extremely or very clear on the important take home points of BLS.
How confident do you feel performing BLS after the course?	100% of respondents felt extremely confident or very confident at performing BLS after the course.
Do you think this is an important course all doctors should go on?	100% of respondents felt all doctors should go on this course.
Would you like more of this type of course?	100% of respondents would like more courses that are similar.

Table 2: Results of the post-course feedback survey

Free text feedback:

'It was a great experience.'

Informal feedback during and after the course was overwhelmingly positive. Both the nurses and doctors reported feeling more confident.

Discussion:

BLS is an essential component to good clinical care in hospitals. The provision of the course enabled many healthcare professionals to hone their BLS skills and knowledge. Many of the candidates stated that they felt empowered to share the knowledge they had learned with their colleagues on the ward and ICU. They felt this they could improve the overall quality of cardiopulmonary resuscitation using the BLS principles learned on the course.

Ideally, feedback forms would be distributed to the nursing candidates, as well as the doctors. However, this was not possible. Informal feedback was collected at the time and it proved logistically challenging to follow nursing participants up with a post-course questionnaire.

Our setting had recently developed a modern simulation centre with great potential. This made running the course easy, despite the rural surroundings. The hospital is making use of this fantastic facility with courses such as Surgical Skills and Basic Life Support. There is also a continuing drive to deliver up to date worldwide recognised courses to benefit the local medical staff and ultimately the population that they serve. With support from the Medical Director, it has been agreed that there will be regular BLS courses to continue reinforcing this area of education.

Conclusions:

The BLS course was a success – candidates felt more confident and acknowledged the need for further courses. The support provided by the hospital empowers the healthcare team to continue professional development, which can only serve in improving patient care over the long-term.

Acknowledgements:

We would like to thank Dr S Patil for her ongoing support with the introduction of this course. We would also like to thank the nursing team on ICU, in particular SisterVinchu for her support and encouragement in providing BLS to the nursing team.

Conflict of interest: None to declare

Source of funding: Nil

References:

1. Institute for Health Metrics and Evaluation. State-level disease burden initiative in India. IHME 2016 http://www.healthdata.org/disease-burden-India accessed May 2018.

2. Gupta R, Mohan I and Narula, J. Trends in Coronary Heart Disease Epidemiology in

India. *Annals of Global Health.* Volume 82, Issue 2, March–April 2016, Pages 307-315

3. Resuscitation Council (UK). Adult basic life support and automated external defibrillation https://www.resus.org.uk/resuscitation-guidelines/adult-basic-life-support-and-automated-external-defibrillation/

4. The JAMA Network Journals. "Basic vs. advanced life support outcomes after out-of-hospital cardiac arrest." ScienceDaily. ScienceDaily, 24 November 2014. <www.sciencedaily.com/releases/2014/11/141124162922.htm>.

5. American Heart Association. Highlights of the 2015 American Heart Association guidelines update for CPR and ECC. 2015 [cited 12 January 2017]; Available from: https://eccguidelines.heart.org/wp-content/uploads/2015/10/2015-AHA-Guidelines-Highlights-English.pdf.