

# Chapter 18

## Teaching First Aid, CPR, and AED Using Blended Learning in Academic Settings

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### ABSTRACT

*Due to the increase of accidents, incidences, and unexpected emergencies, knowledge of first aid, CPR, and AED skills is critical. It can make the difference between life and death and between complete recovery and permanent disability. Although numerous agencies such as the American Red Cross, American Safety and Health and Institute (ASHI), American Heart Association (AHA), and other organizations have trained millions of individuals in first aid, CPR, and AED, there is still a need to train more people especially the college age population. This chapter examines the need and impact of teaching first aid, CPR, and AED through blended learning in a college or university setting. Benefits of blended and online courses as well as strategies for setting up and teaching a blended learning course are provided.*

### INTRODUCTION

Accidents and injuries can happen to anyone at any time but having basic knowledge of First Aid and Cardio-Pulmonary Resuscitation (CPR) and Automated external defibrillator (AED) can help save a life. Techniques and skills related to CPR, AED and First Aid are all critical and necessary in an emergency because they can help sustain life, reduce pain, and minimize the consequences of injury or sudden illness until professional medical help arrives. First responders or emergency responders are individuals who have undergone professional training and have knowledge on what to do or how to respond in emergency and crisis situations. Unfortunately, reports from American Red Cross, indicate that, lay responders or citizen responders are often hesitant to respond to emergencies or act during emergencies because of many negative barriers and challenges that they may encounter. Lay responders are individuals who

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have minimal training in responding to an emergency. The barriers that may be encountered include: the fear of not knowing what to do during an emergency, doing something wrong or ineffective, encountering too many bystanders at the scene, catching a disease or illness, and being sued due to malpractice (Celik, 2011). An effective way of decreasing such events involves increasing people's knowledge of first aid through educational trainings, courses and seminars. The need and impact of teaching First Aid, CPR, and how to properly use the Automated External Defibrillator (AED) through blended courses in a higher learning or college setting will be discussed and background information surrounding first aid will be provided, as well as exploring the term 'blended' and 'hybrid' learning.

## **BACKGROUND**

According to Celik (2011), knowledge of first aid is important for every individual at every age. First Aid is the initial assistance given at the site of the accident before the arrival of an ambulance or professional medical team member (Celik, 2011). According to the Canadian Center for Occupational Health and Safety (CCOHS) (2012), first aid is inclusive of the assessments and interventions that can be performed by a bystander, or the person injured, with the use of little to no medical equipment. First aid and its procedures and techniques (bandaging, resuscitation) are continually revised due to new and developing knowledge and relevant technological advances (Celik, 2011). Recent statistics indicate that driving-related accidents among young people are among the top ten causes of death worldwide, and the number of sudden illnesses due to accidents continues to increase (Celik, 2011). Accidents and injuries are very common among children and can often lead to negative life-changing consequences or, in extreme cases, death. According to the American Red Cross and the Young Men's Christian Association (YMCA) Organizations (2010), drowning is the leading cause of accidental death for children ages 1-4, 88% of cardiac arrest emergencies occur at home, only 6.4% of Cardiac Arrest Victims survive because people witnessing the incident do not know how to perform basic CPR skills, and over 200,000 people die of sudden cardiac arrest every year, and 50,000 of the 200,000 deaths yearly could be prevented if more people were trained in First Aid, CPR and AED.

According to the American Red Cross organization (2010), 88% of cardiac arrests occur at home. The American Red Cross also reports that the immediate and effective performance of CPR for an individual who has had a sudden cardiac arrest can double or triple a victim's chance of survival. According to McAnn (2013), learning First Aid can make the difference between life and death, improve self-confidence in performing First Aid, as well as increase opportunities for potential jobs due to the developed skill set. Using a blended learning modality for a First Aid and CPR course may reduce long term cost and staff requirements, despite the challenges that professors may have to experience at the beginning of the course when creating and implementing lectures and trainings (Zajic, Hallmann, Heschl, Metnitz, Rehatschek, Schörghuber, & Prause, 2016). According to Rowe (2010), potential benefits of blended learning courses for CPR, AED, and First Aid are: greater convenience and scheduling alternatives for both students and instructors, and reduction in group time and less time spent producing negative results that are related to having groups of people together. These benefits allow students and instructors to be more flexible in their schedules and to complete assignments at their own pace (Rowe, 2010.)

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