Savinglife®: An Educational Technology for Basic and Advanced Cardiovascular Life Support

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Abstract: The development of information and communication technologies and the accessibility of mobile devices has increased the possibilities of the teaching and learning process anywhere and anytime. Mobile and web application allows the production of constructive teaching and learning models in various educational settings, showing the potential for active learning in nursing. The objective of this study was to present the development of an educational technology (Savinglife®, an app) for learning cardiopulmonary resuscitation and advanced cardiovascular life support training. Savinglife® is a technological production, based on the concept of virtual learning and problem-based learning approach. The study was developed from January 2016 to November 2016, using five phases (analyze, design, develop, implement, evaluate) of the instructional systems development process. The technology presented 10 scenarios and 12 simulations, covering different aspects of basic and advanced cardiac life support. The contents can be accessed in a non-linear way leaving the students free to build their knowledge based on their previous experience. Each scenario is presented through interactive tools such as scenario description, assessment, diagnose, intervention and reevaluation. Animated ECG rhythms, text documents, images and videos are provided to support procedural and active learning considering real life situation. Accessible equally on small to large devices with or without an internet connection, Savinglife® offers a dynamic, interactive and flexible tool, placing students at the center of the learning process. Savinglife® can contribute to the student's learning in the assessment and management of basic and advanced cardiac life support in a safe and ethical way.

Keywords: problem-based learning, cardiopulmonary resuscitation, nursing education, advanced cardiac life support, educational technology

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