Cardiopulmonary Resuscitation and Automated External Defibrillation Education in Philadelphia High Schools

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Background: Bystander cardiopulmonary resuscitation (CPR) rates are low. Our study aim was to encourage Philadelphia high school students to develop CPR/AED (automated external defibrillator) training programs and to assess their efficacy. The students focused on developing innovative ways to learn the skills of CPR/AED use, to increase willingness to respond in an emergency, and to retain effective psychomotor resuscitation skills.

Methods: Health education classes in 15 Philadelphia School District high schools were selected, with one Control and one Study Class per school. Both completed CPR/AED pre- and post-tests to assess cognitive knowledge and psychomotor skills. After pre-tests, both were taught CPR skills and AED use by their health teacher. Study Classes developed innovative programs to learn, teach, and retain CPR/AED skills. The Study Classes competed in multiple CPR/AED skills events at a CPR/AED competitive event (CPR/AED Olympics).

Results: All students' cognitive and psychomotor skills improved with standard classroom education (p Conclusion: Students who developed creative and novel methods of teaching and learning resuscitation skills showed outstanding application of these skills in a Mock Code with remarkable psychomotor skill retention, potentially empowering a new generation of effectively trained CPR bystanders.