

# School saves lives: shaping physically educated citizens

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## **Background and purpose**

In Europe and the United States, more than 700,000 people die each year from cardiac arrest (Berdowski et al., 2010). If bystander cardiopulmonary resuscitation (CPR) could increase this survival rate by 2-3 times, less than 20% of the general population is able to perform it effectively (Plant & Taylor, 2013). School can play an active role in teaching basic life support (BLS) training programs that would have a significant impact on public health (Conolly et al., 2007). In a societal transfer perspective (Cloes, 2017), PE teachers are ideally placed to learn BLS to their students (Colquhoun, 2012).

## **Methods**

Twenty-one secondary school PE teachers were recruited and trained to one of the 3 evolutive BLS cycles adapted to the PE curriculum of each teaching level. Students learned the CPR+AED protocol during 6 sessions of PE with hands-on application on training manikins and AEDs. Students' knowledge of the BLS protocol was assessed by an open-ended questionnaire at baseline (T0), after the intervention (T1), and after a follow-up period of 3 months (T2). Practical application of the BLS protocol was assessed on a manikin measuring CPR performance at T1 and T2.

## **Results**

In each teaching level, students (1<sup>st</sup>: 10.7±0.8 years, n=186; 2<sup>nd</sup>: 14.5±0.9 years, n=112; 3<sup>rd</sup>: 17.1±0.8 years, n=307) demonstrated significant improvements of knowledge of the CPR+AED protocol at T1 (p<.000) that remained stable at T2. Second and third cycles students were able to perform chest compressions close to the international recommendations (ERC, 2015) at T1 and T2. More than 80% of the students felt able to help a victim of cardiac arrest at T1 and T2.

## **Conclusions**

The CPR+AED sequence led to encouraging improvements of knowledge, abilities, and confidence of the students. PE teachers felt valued and able to contribute autonomously to this major public health challenge.