

Using Do-it-yourself (DIY) manikins to teach resuscitation skills

Background: Bystander CPR is an important skill with the potential to save millions of lives (1), including in drowning incidents. However, commercial CPR courses often require expensive or hard-to-maintain manikins (2). Do-it-yourself (DIY) manikins (i.e., handmade with materials easily available) may be a suitable tool to increase access to CPR training worldwide at very low costs. However, only limited evidence or guidelines exist on this topic (3).

Description: A multi-sector project initiated by the SLRG, entitled “DIY Manikins for teaching CPR”, investigated the state-of-the-art and feasibility of DIY manikins and developed a concept for the worldwide diffusion of the DIY manikin idea. This was achieved by a literature review, a collection of pilot studies, panel discussions with researchers and experts from around the world, concept development and the set-up of a platform.

Lessons learned: Not enough evidence exists to determine whether DIY manikins are an effective tool to teach all aspects of first aid education. The potential use of DIY manikins expands the range of outcome goals beyond technically correct compressions, e.g., it may assist in developing basic skills in school children (4,5), empower remote or low-income regions to self-educate, or allow representation of cultural and physical characteristics not available in commercial manikins. It may also stimulate deeper learning processes (6). For these goals, different criteria may be relevant (e.g., psychological fidelity, humanlike appearance, representing and catering to diversity of culture, ability, and more). We developed a pragmatic concept for worldwide diffusion of BLS education, which begins on a platform on which researchers, stakeholders and educators collaborate to establish best practices and evidence (7,8).

Outlook: The project continues on two parallel tracks: a research network will focus on establishing an evidence-base for the use of DIY CPR manikins for laypeople, including cultural, societal, psychological, educational and medical aspects. In parallel, an outreach track will continue implementing the plans for a world-wide diffusion.

Conclusions: DIY manikins might make it possible to extend access to basic CPR training beyond those currently served, to increase health literacy and equity.

References

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