Revista Portuguesa de Cardiologia 41 (2022) 145–146

Revista Portuguesa de
Cardiologia
Portuguese Journal of Cardiology
www.revportcardiol.org

EDITORIAL COMMENT

Resuscitation training in schools performed by teachers: Why is it important?

Treino de ressuscitação realizado por professores em escolas: por que é importante?

Duarte Pedro Tavares

Departamento de Saúde Pública – Administração Regional de Saúde de Lisboa e Vale do Tejo, IP, Lisboa, Portugal

Available online 11 December 2021

Portugal, a country in which most cases of cardiac arrest (CA) occur at home,[1] is a case study for the need to develop public health programs and projects to deal with this challenge. The challenge is that since 35% of CAs are witnessed,[1] there is potential for people in the household or bystanders to intervene and assist in the possible reversal of this clinical situation as early as possible through basic life support (BLS) maneuvers.

This is similar to the campaign in the 1990s and 2000s with the slogan 'reduce, reuse, recycle' in which children and teenagers played an important role in promoting environmental awareness in families. According to Statistics Portugal (INE), the coordinated action of the various stakeholders in society and the intergenerational transmission of knowledge led to the quantity of selectively collected urban waste increasing from 4 kg per head of population in 1995 to 11 kg in 1999, 40 kg in 2005 and 76 kg in 2010. Why should a similar methodology not be applied to basic life support (BLS)?

This is the idea behind the study by Lanzas et al. published in this issue of the *Journal*.[2] The authors examined differences between school teachers and health professionals as instructors in BLS training programs for high school students, and found similar levels of effectiveness. The results of the study, together with its well explained economic analysis, are solid evidence for implementing projects in schools in which the key interlocutor is a teacher with BLS training who is responsible for training and evaluating students in this topic.

This is a key result of the demographic transition through which Portugal has passed,[3] in which growing intergenerational contact (such as between grandparents and grandchildren) enables children, teenagers and young adults to intervene if their relatives suffer CA.

But why was the study conducted only in the 10th to 12th grades in the discipline of Physical Education (given that it is part of the core curriculum for the 10th grade), when the curriculum of the 9th grade Natural Sciences discipline already includes this subject?[4]

And what is the role of teacher training in this issue? There are already training courses accredited by the Scientific-Pedagogical Council of Continuing Education of the Ministry of Education for this purpose. This could be a way to encourage teachers' interest in undergoing the nec-

E-mail address: duartepedro7@gmail.com

https://doi.org/10.1016/j.repc.2021.10.006
0870-2551/© 2021 Sociedade Portuguesa de Cardiologia. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

essary training to acquire the skills and knowledge of first aid and BLS, in order to share it with their students.

We should consider not only Physical Education in the 10th grade in high school or Natural Sciences in the 9th grade of basic education, but also application of the Domains of Curricular Autonomy (DAC) set out in 2018, which highlight the role of all subjects in primary and secondary education and ensure the strengthening of responsibility required for students to be able to take care of themselves, others and the environment, one of the operative descriptors in the Profile of Students Leaving Compulsory Education of the Portuguese Ministry of Education.[5]

There is recent evidence that teaching BLS and cardiopulmonary resuscitation (CPR) maneuvers to children aged 5-8 years is effective.[6] Efforts should therefore be made to incorporate this subject in the educational curriculum earlier and earlier.

We now know that we have all the basics to work with schoolchildren: a health education program that includes BLS, this content in the core curriculum, and training for teachers certified by the Ministry of Education in this area. Even so, only 15.3% of the Portuguese population[7] say they have knowledge of BLS and know how to act when confronted by a CA.

But are we alone on this path in which ''every citizen should learn to provide the basic skills to save a life'', as stated by the European Resuscitation Council?[8]

In 2013, only four European countries included CPR in school curricula.[9] In 2014-2016, only 8% of schools in London offered their students universal BLS training programs[10] and few papers on this topic have been published, as can be seen from the reference list in Lanzas et al.'s study.[2] It can be concluded that in this sense Portugal is in line with the rest of the European Union.

Combining the excellent results of Lanzas et al. with knowledge of the situation in other countries in the European Union, it is necessary, as with environmental education in the 1990s and 2000s, to take steps so that the topic of BLS and the skills to act in a case of CA can be transmitted to children, teenagers, and young people, with the expectation that, in the near future, more of these 35% witnessed CAs can be reversed.

Conflicts of interest

The author has no conflicts of interest to declare.

References

1. INEM. Registo Nacional de Paragem Cardio-respiratória Pré-Hospitalar. Available from: http://extranet.inem.pt/pcr/ [accessed 15 September 2021].
2. Lanzas D, Nunes P, Perelman J. Training program in resuscitation maneuvers delivered by teachers in a school setting: an economic argument. Rev Port Cardiol. 2022;41.
3. Guardado Moreira MJ, de Castro Henriques F. Demographic and health changes in Portugal (1900-2013). Hygiea. 2016;12:9–39.
4. Aprendizagens Essenciais. Available from: https://www.dge.mec.pt/aprendizagens-essenciais-0 [accessed 15 September 2021].
5. Perfil dos Alunos à Saída da Escolaridade Obrigatória. Available from: https://www.dge.mec.pt/sites/default/files/Curriculo/Projeto_Autonomia_e_Flexibilidade/perfil_dos_alunos.pdf [accessed 15 September 2021].
6. Varela-Casal C, Abelairas-Gómez C, Otero-Agra M, et al. Teaching basic life support to 5- to 8-year-old children: a cluster randomized trial. Pediatrics. 2021;148, e2021051408.
7. Sá-Couto C, Nicolau A. General public's knowledge regarding basic life support: a pilot study with a Portuguese sample. Acta Med Port. 2019;32:111.
8. Greif R, Lockey A, Breckwoldt J, et al. European resuscitation council guidelines 2021: education for resuscitation. Resuscitation. 2021;161:388–407.
9. Breckwoldt J, Lockey A, Bossaert L, et al. National implementation of CPR training programmes for school children in Europe. Resuscitation. 2013;84:S40.
10. Salciccioli JD, Marshall DC, Sykes M, et al. Basic life support education in secondary schools: a cross-sectional survey in London, UK. BMJ Open. 2017;7, e011436.