

# CHILD RESCUERS - TEACHING CARDIOPULMONARY RESUSCITATION TO CHILDREN: AN EXPERIENCE REPORT

PEQUENOS SOCORRISTAS - ENSINANDO REANIMAÇÃO CARDÍACA PARA CRIANÇAS: RELATO DE EXPERIÊNCIA

PEQUEÑOS RESCATADORES - ENSEÑANZA DE RUSTICACIÓN CARDÍACA A NIÑOS: INFORME DE EXPERIENCIA

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#### **ABSTRACT**

Cardiovascular diseases represent one of the leading causes of sudden death worldwide, with cardiopulmonary resuscitation (CPR) being a key determinant for survival in cases of cardiac arrest. Teaching Basic Life Support (BLS) to laypeople is an essential strategy to reduce mortality, yet it remains underdeveloped in Brazil. This report describes the experience of the "Little Rescuers" project, which aimed to teach children aged 4 to 8 years how to recognize cardiac arrest and perform basic CPR maneuvers in a playful way. The project was carried out in a municipal school in Estrela, Brazil, over one semester, with weekly sessions. Activities included explanations about the heart's function, how to recognize cardiac arrest, and hands-on CPR training using child-sized mannequins to the rhythm of the song "Baby Shark," adapted to the compression pace. Children showed great engagement, curiosity, and enthusiasm, progressively demonstrating understanding of the topic. It is concluded that teaching CPR to children is a promising tool for developing future citizens capable of acting in emergencies, potentially increasing survival rates in cardiac arrest cases.

**Keywords:** Basic Life Support. Cardiopulmonary Resuscitation. Health Education. Children. First Aid.

## **RESUMO**

As doenças cardiovasculares representam uma das principais causas de morte súbita no mundo, sendo a reanimação cardiopulmonar (RCP) um fator determinante para a sobrevivência em casos de parada cardiorrespiratória (PCR). O ensino de suporte básico de vida (Basic Life Support - BLS) para leigos é uma estratégia essencial para reduzir a mortalidade, mas ainda pouco difundida no Brasil. Este relato descreve a experiência do projeto "Pequenos Socorristas", que teve como objetivo ensinar, de forma lúdica, o reconhecimento de uma PCR e a execução de manobras básicas de RCP a crianças de 4 a

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8 anos em uma escola de educação infantil. O projeto foi desenvolvido em uma escola municipal de Estrela, RS, ao longo de um semestre, com encontros semanais. As atividades incluíram explicações sobre o funcionamento do coração, reconhecimento da parada e treino prático com manequins infantis ao som da música "Baby Shark", adaptada ao ritmo da compressão torácica. Observou-se grande engajamento, curiosidade e alegria por parte das crianças, além de uma progressiva familiarização com o tema. Conclui-se que o ensino de RCP para crianças é uma ferramenta promissora na formação de futuros cidadãos conscientes e capazes de agir em situações emergenciais, podendo contribuir, a longo prazo, para o aumento da taxa de sobrevida em casos de PCR.

**Palavras-chave:** Suporte Básico de Vida. Reanimação Cardiopulmonar. Educação em Saúde. Crianças. Primeiros Socorros.

## RESUMEN

Las enfermedades cardiovasculares representan una de las principales causas de muerte súbita en todo el mundo, y la reanimación cardiopulmonar (RCP) es un factor determinante para la supervivencia en casos de paro cardiorrespiratorio (PCR). Enseñar soporte vital básico (SVB) a personas sin formación básica es una estrategia esencial para reducir la mortalidad, pero aún no se utiliza ampliamente en Brasil. Este informe describe la experiencia del proyecto "Pequeños Rescatistas", cuyo objetivo fue enseñar, de forma lúdica, el reconocimiento del PCR y la realización de maniobras básicas de RCP a niños de 4 a 8 años de edad en un preescolar. El proyecto se desarrolló en una escuela municipal de Estrela, RS, a lo largo de un semestre, con reuniones semanales. Las actividades incluyeron explicaciones sobre la función cardíaca, el reconocimiento del paro cardíaco y entrenamiento práctico con maniquíes infantiles al ritmo de la canción "Baby Shark", adaptada al ritmo de las compresiones torácicas. Los niños demostraron gran participación, curiosidad y alegría, así como una familiarización progresiva con el tema. Se concluye que enseñar RCP a niños es una herramienta prometedora para formar futuros ciudadanos conscientes y capaces de responder en situaciones de emergencia, y podría contribuir, a largo plazo, a aumentar las tasas de supervivencia en casos de paro cardíaco.

**Palabras clave:** Soporte Vital Básico. Resucitación Cardiopulmonar. Educación para la Salud. Niños. Primeros Auxilios.

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#### 1 INTRODUCTION

Cardiovascular diseases are among the leading causes of sudden death worldwide, representing an ongoing challenge for health systems (WHO, 2023). Early recognition of cardiorespiratory arrest (CPA) and proper performance of cardiopulmonary resuscitation (CPR) are essential for reducing mortality and associated neurological sequelae.

However, the general population's knowledge on the subject is still limited. Basic Life Support (BLS) training programs are mostly aimed at health professionals, which restricts the community impact of these measures (AHA, 2020).

Considering that children have a high learning capacity and can act as multipliers of information within the family, the teaching of basic notions of CPR in childhood becomes an innovative strategy with great social potential. Thus, the "Little Rescuers" project sought to introduce, in a playful and didactic way, the teaching of recognition and response to CPA in children from a municipal school.

#### 2 OBJECTIVES

To report the experience of the extension project "Little First Responders", aimed at the playful teaching of the recognition of cardiorespiratory arrest and the execution of basic life support (BLS) to children from 4 to 8 years of age.

# **3 MATERIALS AND METHODS**

The project was developed in a Municipal School of Early Childhood Education located in the municipality of Estrela, Rio Grande do Sul. Children from the Kindergarten, 1st and 2nd grades of elementary school participated. The activities took place weekly, during the first academic semester of 2024, totaling alternating meetings between classes.

In each meeting, the content was divided into two stages. In the first, the functioning of the heart, its functions and the possible causes that can lead to cardiac arrest were addressed, using posters, drawings and accessible language. In the second stage, the children participated in a practical demonstration of CPR, using adapted child mannequins and the rhythm of the song "Baby Shark" as a reference for the frequency of chest compressions.

Before the beginning of the activities with the children, a brief training on BLS was held with the school's teachers, in order to ensure the continuity and reinforcement of learning

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within the school environment. Progress was assessed qualitatively, observing the students' involvement, spontaneity, and retention of knowledge on the subject in the following weeks.

## **4 RESULTS AND DISCUSSION**

The initial meetings, held in March 2024, were briefly aimed at the internal organization and training of teachers. Then, on the same day, activities with the children began, in which enthusiasm, curiosity and active engagement were observed.

During the demonstrations, the children spontaneously reproduced the compression movements, associating them with the music used, which facilitated the learning of rhythm and motor coordination. The playful methodology proved to be effective in arousing interest and promoting the fixation of concepts in a natural way.

Although it is still too early to assess long-term learning retention, the experience reinforces the importance of introducing first aid teaching at an early age. International studies corroborate that continuous SLNB programs in schools significantly increase the likelihood of appropriate intervention in cardiac emergencies in adulthood (Böttiger & Van Aken, 2015).

The project also had a positive impact on teachers, who reported greater confidence and interest in participating in future first aid training, consolidating the school as a space for community health promotion.

# **5 CONCLUSION**

Training children in the basics of life support is a promising strategy to increase the number of people able to recognize and act in the face of cardiorespiratory arrest. The "Little Rescuers" project demonstrated that the playful teaching of CPR is viable and effective in early childhood education, stimulating active learning and a sense of collective responsibility.

Future evaluations should analyze the retention of knowledge in the medium and long term, as well as the impact of the project on the formation of adults who are more aware and prepared to act in emergency situations.

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