

# Healthcare professionals' knowledge, skills, and attitudes regarding defibrillator use in pediatric emergency and intensive care clinics

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## Abstract

**Purpose:** Successful resuscitation and early defibrillation are critical in survival after in- or out-of-hospital cardiopulmonary arrest. This study aimed to determine the knowledge, skills, and attitudes of the pediatric healthcare professionals about the defibrillator use and to offer solutions if there was room for improvement. **Procedures:** This was a multicenter survey study. **Findings:** The study included 716 healthcare professionals with an average age of  $30.1 \pm 5.8$  years; 50% (n=358) were pediatric residents and 41.3% (n=296) had less than three years of professional experience. Self-declared level of knowledge about defibrillation/cardioversion was low-to-medium for 66.5% (n=476); 60.8% (n=435) had never practiced these procedures and 22.2% (n=159) had never received any training about defibrillator use. There was a significant relationship between professional experience and the proportion of participants who correctly responded to the first-shock dose for defibrillation but not for cardioversion. **Conclusion:** Professional experience is crucial in the correct defibrillator use. However, the defibrillation/cardioversion procedures are prone to errors since they are not commonly applied in day to day practice. An ideal approach to improve the experience of personnel could be to use practical training with case-based simulations and to educate the personnel about the features of the defibrillators available in their clinics.

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