

# Effects of Simulation-based Training for Pediatric Advanced Life Support in Pediatric Cardiac Intensive Care Unit

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**Background:** Cardiopulmonary resuscitation is crucial for life saving. Simulation-based training (SBT) for pediatric advanced life support (PALS) at the real workplace with multidisciplinary team members may enhance confidence, communication skills, preparedness in team members and decrease anxiety levels.

**Objectives:** We aimed to compare scores of confidence, communication, preparedness and level of anxiety before and after using SBT for PALS in pediatric cardiothoracic intensive care unit. The difference of time for resuscitation was also studied.

**Method:** This study is pre-experimental research design. We included 30 subjects (pediatric cardiac fellows, nurses and nursing assistances) and assigned them into six groups. Every group had the same team members and participated in SBT two times (interval of three months). Using the questionnaire before and after training, level of confidence, communication skills, preparedness, anxiety were compared. The knowledge were evaluated by the multiple choice questions. Time to start each steps of resuscitation were recorded.

**Results:** After two-time simulation-based training, the scores of confidence, communication skills and preparedness were increased and the scores of anxiety were decreased, significantly. However, there was

no difference of knowledge scores. After second training, all team members could start the resuscitation faster which showed skill retained.

**Conclusion:** Simulation-based training for PALS at the real workplace with multidisciplinary team could improve the performance and competency of resuscitation teams. This pattern of simulation-based training should be implemented into the regular training.

**Keywords:** Simulation-based Training, pediatric life support

