

## The Use of Simulation-Based Training to Improve Team Dynamics during Code in Critical Care Units

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**Abstract :** Background: Simulation in the health care field has been increasingly used over the last years in the training of resuscitation and life support practices. It has shown the advantage of improving the decision-making and technical skills through deliberate practice and return demonstration. Local Problem: This article reports on the integration of simulation-based training (SBT) in the training program about proper team dynamics and leadership skills during cardiopulmonary resuscitation (CPR) in the intensive care unit (ICU). Method and Intervention: Training of 180 critical care nurses was conducted using SBT between 1st January and 30th 2020. We had conducted 15 workshops, with the integration of SBT using high fidelity manikins and using demonstration and return-demonstration approach to train the nursing staff about proper team dynamics and leadership skills during CPR. Results: After completing the SBT session, all 180 nurses completed the evaluation form. The majority of evaluation items were rated over 95% for the effectiveness of the education; four items were less than 95% (88–94%). Lower rated items considered training and practice time, improved competency, and commitment to apply to learn. The team dynamics SBT was evaluated as an effective means to improve team dynamics and leadership skills during CPR in the intensive care unit (ICU). Conclusion: The use of simulation-based training to improve team dynamics and leadership skills is an effective method for better patient management during CPR. Besides skills competency, closed-loop communication, clear messages, clear roles, and assignments, knowing one's limitations, knowledge sharing, constructive interventions, re-evaluating and summarizing, and mutual respect are all important concepts that should be considered during team dynamics training. However, participants reported the need for a repeated practice opportunity to build competency.

**Keywords :** cardiopulmonary resuscitation, high fidelity manikins, simulation-based training, team dynamics

**Conference Title :** ICHSA 2021 : International Conference on Healthcare Simulation and Applications

**Conference Location :** Montreal, Canada

**Conference Dates :** June 14-15, 2021