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The latest scientific research is constantly reviewed to ensure that the Neonatal Resuscitation Program (NRP) continues to be evidence-based and up-to-date. A great effort has also been made to ensure that the methodology used to educate providers is optimally effective. Simulation-based training is being recognized as a way to revolutionize healthcare education and is being fully embraced by the NRP. To help instructors incorporate simulation into their NRP courses, each issue of Instructor Update will include a column answering questions regarding this powerful new methodology.

“How is simulation-based training different than a megacode?”

A megacode is typically conducted with a small team of learners who share the responsibility of caring for a fictional patient. The instructor guides the learners by using information about vital signs as interventions are decided upon and implemented. The focus of the megacode is on cognitive and technical skills. There is no sense of time pressure as the learner thinks through each decision. In simulation-based training the learner functions in real time; any delay in treatment leads to continued decline in patient status. In addition, learners will be expected to demonstrate an additional skill set: behavioral skills. With simulation, it is possible to incorporate behavioral skills such as leadership, communication, and delegation of tasks. These three skills are just a few examples of behavioral skills that are equally as important as cognitive and technical skills.

“Simulation-based Training has been used in place of traditional methodologies in many domains with the belief that hands-on experience improves skill acquisition and retention.”

Is there any evidence that simulation-based training is more effective than traditional methodologies?

Simulation-based training has been used in place of traditional methodologies in many domains with the belief that hands-on experience improves skill acquisition and retention. Research has been done to investigate this notion and the results are in favor of simulation. Simulation has been successful in teaching technical skills such as mini bronchoalveolar lavage.\(^3\) When compared with didactics, simulation was found to be superior in preparing healthcare professionals to manage postpartum hemorrhage. The simulation-trained group showed sustained improvement in clinical management, confidence, communication, and knowledge and reported decreased levels of anxiety.\(^4\) Most importantly, simulation-based training has been shown to have an impact on patient outcomes. Draycott et al. reported that providing obstetric staff with annual simulation education not only improved the management of obstetric emergencies, but lead to a statistically significant decrease in the incidence of neonatal hypoxic-ischemic encephalopathy.\(^5\) Comparing these data to findings that demonstrate poor acquisition and retention of skills and knowledge with traditional education provides incentive to reevaluate our teaching methodology and consider incorporating simulation-based training into the NRP education process.

References


