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Quote of the Month

“Simulation will be an important ‘bottom up’ tool for creating and maintaining a culture of safety and for fostering changes in work procedures and systems (Gaba, 2007)



*“Simulation in Health
Professions Education: Boom
or Bust?”*

So what’s the “big deal” about simulation anyway? This month I’d like to talk very briefly about how **simulation based training (SBT)** has impacted both education and clinical care in medicine. The fundamental idea behind SBT is quite simple: to provide guided training experiences in a real-world environment, so that trainees can practice care processes and/or procedures safely, learn from their errors and increase patient safety and care quality.

The term “simulation” is broad, and includes a variety of different techniques. Simulation training has its history in military service as well as the aerospace and commercial aviation industries. Standardized patients, computer-based programs, task trainers and high fidelity mannequins are all considered part of the medical simulation landscape. Mannequin-based SBT in health professions training has been described as “arguably the most prominent innovation in medical education over the past 15 years”¹. There is a voluminous literature available on how various SBT techniques have been used in support of health professions training, and it is clear that this format has much to offer. In particular, the opportunity to practice higher-risk procedures repeatedly in a controlled setting prior to performing them on actual patients has gained prominence as a way to reduce errors. And, a number of research studies pertaining to simulation training have shown that selected skills performed in a simulated environment translate well to real-time patient care, and can also lead to reductions in patient care complications^{2,3}.

The technology itself is rapidly evolving and gaining more realism every day as more companies enter the market. Clearly, the expansion of simulation-based training and assessment is now firmly established as a cornerstone requirement of health professions training programs. These techniques are being used along the entire curriculum from beginning of physician training through re-licensing and re-certification of practicing physicians. A similar pathway is followed in nursing and several other health professions programs. More than an expensive “trend”, this set of training techniques appears to be here to stay as a major contributor to safer patient care. Be watching for future news concerning SBT within our system. Your comments, suggestions and ideas about how simulation can improve our clinical care and training processes are always welcome!!

David Musick, PhD

1. Association of American Medical Colleges. Medical Simulation in Medical Education: Results of an AAMC Survey. Washington, DC, 2011.
2. McGaghie WE; Issenberg SB; Petrusa E; et al. Effect of Practice on Standardized Learning Outcomes in Simulation-Based Medical Education. Medical Education 2006; 40: 792-7.
3. Barsuk JH; Cohen ER; Feinglass J; et al. Use of Simulation-Based Education to Reduce Catheter-Related Bloodstream Infections. Archives of Internal Medicine 2009; 169 (15): 1420-3