Incorporating Simulation into PhD Education

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Background

Responsible conduct of research (RCR) is an essential component of graduate scientific education and a critical component of professional behavior (Anderson et al., 2007; Heitman & Bulger, 2005; N.R., 2007; Peirce & Smith, 2013). In the PhD program at the College of Nursing, this content is currently delivered using a didactic approach and is a component of the core curriculum early in a student’s course of study. However, when students move forward to the implementation phase of their dissertation we have found that many questions persist or arise regarding RCR. Further, although clinical nursing programs commonly employ simulation scenarios to teach patient care skills, little has been done with simulation in research training (Fanning & Gaba, 2007; Horvancsek, 2007). Considering developing trends in education, we have developed two RCR scenarios that can be implemented in our simulation lab, a controlled environment, to further integrate RCR principles into our PhD program. This presentation will discuss how we will use simulation to address students RCR needs, illustrating our novel approach to research training and exemplify the intersection of teaching, research, and technology.

Development

During the development of scenarios, we used an education matrix to calibrate the complexity of simulation-based learning (Benner, 1982, 1984; Dreyfus, 2004). This matrix takes into account increments in skill performance based upon experience as well as education, allowing us to build scenarios that unfold with increasing complexity, and evaluate student performance. As expertise is attained, more challenges are presented and less skills and knowledge are provided within a scenario.

References


N.R., S. (2007). ORI Introduction to the responsible conduct of research. DHHS Office of Research Integrity