Rehabilitation In The ICU: An Advanced Practice Course For Physical Therapist Students

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Purpose: There is demand for physical therapists competent to practice in the ICU. Immersive simulation is an ideal instructional design strategy for teaching ICU rehabilitation skills because it provides safe, low risk environments to master high risk interventions. The purpose of this report is to describe a novel advanced practice elective course that prepares physical therapist students for clinical ICU mentorship by incorporating multiple simulated ICU clinical experiences.

Description: This 3 credit hour Advanced Practice elective was offered in Fall 2014 to 8 final year doctor of physical therapist students. Course objectives included understanding the efficacy of early mobilization in the ICU, identifying the role of multidisciplinary approaches to managing critically ill patients, identifying the function of ICU equipment and modes of mechanical ventilation, and demonstrating pre-entry level competency and safety while evaluating and treating ICU patients. The course integrated pathophysiology and electrocardiogram interpretation to inform patient examination and rehabilitation interventions. Educational strategies used included lectures, immersive simulation experiences, and clinical ICU experiences. Students engaged in eight simulation experiences (19 hours). Participation in these simulated patient scenarios provided students the opportunity to apply their knowledge of patient management and develop critical thinking and problem solving skills. During debriefing, students were challenged to reflect on their performance and provide evidence-based clinical reasoning for the implementation of rehabilitation services for individuals being managed in the ICU. Students participated in 2 partial
day ICU clinical experiences at the end of the course.

**Summary of Use**: The outcomes of the course were positive. All students passed the required didactic examinations, completed oral presentations about their ICU clinical experience, and passed the optional Advanced Cardiovascular Life Support (ACLS) course. Students’ self-confidence increased over the eight simulation experiences. ICU physical therapist clinical instructors indicated the students were well prepared for an ICU clinical affiliation and improved from their first to their second ICU experience. 75% of students indicated they intend to seek employment in the acute care setting.

**Importance to Members**: This course successfully prepared physical therapist students for clinical mentorship in the ICU and demonstrates a potential educational model to meet the current healthcare system demand for physical therapists by developing physical therapists with the knowledge and interest in attaining competency to practice in the ICU. Since this is the first report of a course of its kind, dissemination of the development, delivery, and evaluation will be of benefit to other physical therapist education programs. More research is required to evaluate the amount of time, type of simulation, and methods of competency determination for this unique course.