Student Registered Nurse Anesthetist Simulation Training with the Use of Cognitive Aids in Malignant Hyperthermia Recognition and Treatment

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Abstract
One of the most stressful times in the life of a student registered nurse anesthetist (SRNA) is during the integration of didactic work with that of clinical anesthesia practice (Chipas et al., 2012). One method that has been proven effective in other avenues of student nursing education is the use of procedural simulation labs. These simulation labs allow SRNAs to experience what it is like to be in the operating room setting, while also showing distinct differences within each case, treatment, and the importance to be familiar with all aspects of anesthesia. The purpose of this project was to examine if SRNA’s found the use of cognitive aids increased their confidence in the recognition and treatment of a simulated malignant hyperthermia crisis. The population of this project was all SRNAs enrolled in the doctoral-level NAPs. For ease of accessibility the sample used for the project was the SRNA class of 2018 for the academic institution’s NAP. Inclusion criteria was students who have their bachelor of science in nursing degree, are of varying ages, backgrounds, and experience levels. No exclusions were made based on previous experience with simulation, or demographic data. The only exclusion criteria were of SRNAs who previously had experience in the clinical setting managing an MH crisis. SRNAs were placed into two groups at random. One group received simulation training using the cognitive aid, while the second group received simulation training without the use of a cognitive aid. A pre/post-test design was used to determine if the students found the use of the cognitive aid beneficial during the crisis. For ethical considerations, after the post-test results were collected the control group received the same simulation as the test group. While the increase in confidence levels of both the cognitive aid and control group were 16% post-simulation, an independent t-test showed that the difference in the confidence levels was not significant, t(12) = -1.15, p = 0.14. Regardless of the findings, SRNAs involved in the project stated they believed that the cognitive aids were beneficial, and plan to continue their use in their operating room practice.