3D Simulation In Clinical Practice

Simulation in nursing is not new and has been around a long time (Nagle, McHale, Alexander, French, 2009). Simulation is also being used in the hospital setting for orientation, competency assessment, and interprofessional team building. The use of virtual simulation permits nursing staff to work at their own pace, can be done at home and not necessarily on the unit or at work. Using web-based simulations provides 24-hour access for self-directed and targeted information to be used for the development of clinical competence (Kowlowitz, Davenport, & Palmer, 2009).

Scenario Development

A group of faculty across several disciplines and programs worked together to develop a 3D stroke scenario. The stroke scenario was based on the standards of care from the National Institute of Health Stroke Scale (NIHSS), Joint Commission, and Get With The Guidelines (GWTG). The script was created to guide students through the assessment and acute management of patient experiencing a stroke. The story was about an older woman (Rita Bowman) who does not consistently take her medication and does not adhere to low sodium diet and develops a stroke. Rita is followed through her emergency department admission to discharge from a rehabilitation center.

Once the script was finalized the next step was to create the virtual world where the story would take place. The 3D platform selected was Second Life by Linden Lab. Second Life is a virtual world where avatars are used to interact with each and you have the ability to change your visual experience. Second Life also uses a 3D platform that requires minimum gaming experience. Second Life supports building 3D virtual environments for students to practice in. It is online video platform that has graphics that can be used to create movies.

Nursing students viewed the online scenario during the medical-surgical nursing lab. Students viewed the online scenario at individual computers with headphones. To assess learning the students were given pre/post tests.

References


Acknowledgements

I would like to thank Dr. Xin Bai and Dr. Joanne Lavin for their vision, creativity, development, and leadership of this project and for including me on it. I would also like to thank Michael Gadbro and Iddan Brown, both from York College. In addition, the CUNY Workforce Development Initiative & Incentive Grant.