MANAGEMENT OF SICKLE CELL DISEASE IN CLINICAL SIMULATION

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Abstract

It is estimated that Sickle Cell Disease affects 90,000 to 100,000 people in the United States, mainly African Americans (CDC, 2011). The disease occurs among about 1 out of every 500 African-American births and among about 1 out of every 36,000 Hispanic-American births (CDC, 2011). There is no cure or management of the symptoms and progression of the disease is complex. The purpose of this project was to design and evaluate a simulation that would better prepare students to provide optimum care to patients with Sickle Cell Disease. The setting was the simulation lab of Chamberlain College of Nursing.

Centers for disease control and prevention. (2011). *Sickle cell disease: Data and statistics.* Retrieved from http://www.cdc.gov/ncbddd/sicklecell/data.html

Participants

Students in the Bachelor of Science in Nursing program participated in the adult health rotation simulation.

Methods

The methodology included a pre- and post-conference of student performance in the management of sickle cell patients in the simulation lab and clinical setting.

The intervention included a simulation covering the care of a sickle cell patient in crisis. Areas focused upon included: recognizing the microcytic anemia based on CBC readings, recognizing the need for blood transfusion based on hemoglobin levels, obtaining patient consent for blood transfusion, utilizing a PCA for optimum pain management and administering blood products.

Students participated in a pre-briefing and post-briefing to address patient status and continuum of care throughout the simulation stages.

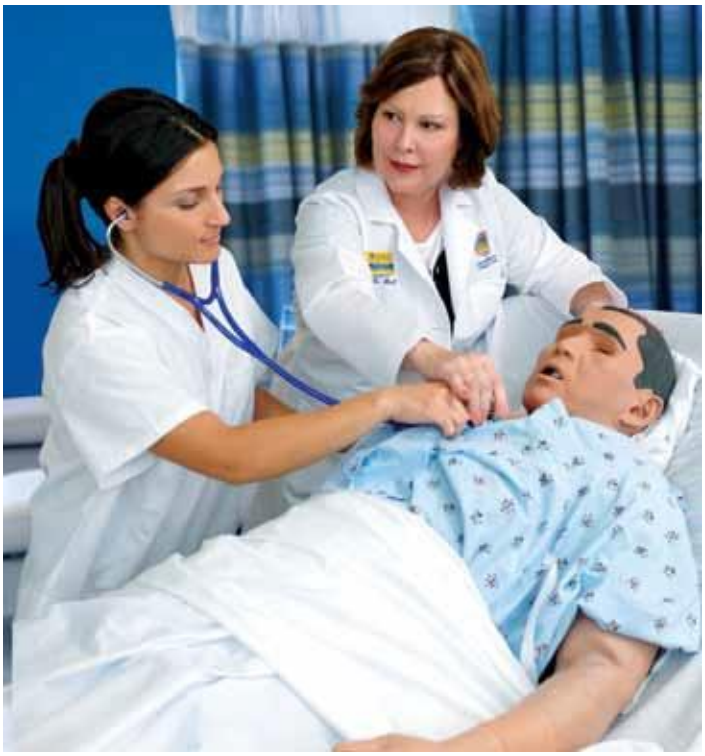
Results

Students became familiar with interpreting lab results, the disease process and how important it is to recognize a true sickle cell crisis.

They also utilized prioritization of nursing interventions for best practice that included fluid resuscitation, oxygen administration and, most importantly, pain relief. At the end of the simulation, students realized how important it is to adequately treat sickle cell disease to prevent complications such as renal disease, heart disease and infections.

Implications

Patients with chronic painful diseases such as sickle cell are often challenging to even the most experienced nurses. When assigning student nurses to care for these patients, it is important to provide the best support so that the experience is positive for the patient and the healthcare professionals. Ensuring a constructive approach and evidenced based practice to a complex situation can result in better outcomes for these complex patients in the clinical setting.



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