



### Background & Significance

- Zarandona et al. (2019) note a misunderstanding of stroke care among nursing students and a call to improve undergraduate stroke education
- Use of simulation in nursing education provides consistent and realistic experiential learning for students in a safe environment (Medley & Horne, 2005)
- Simulation offers the opportunity to create unique scenarios and the ability to rectify mistakes in real time (Medley & Horne, 2005)
- Faculty teaching in a prelicensure baccalaureate nursing program developed a two-part unfolding stroke simulation involving emergent and routine nursing care

### Purpose

- To cultivate the development of critical thinking and clinical judgment in students providing nursing care during the acute and rehabilitative phases of stroke treatment
- To highlight the provision of holistic and family-centered nursing care utilizing standardized patients

### Learning Outcomes

- Implement patient safety measures
- Relate the patient's history and assessment findings to the patient's present condition (Part 1)
- Develop and implement a nursing plan of care in relation to the patient's condition (Part 2)
- Prioritize nursing interventions
- Employ effective communication skills with the patient, family, and healthcare providers

### Processes & Scenario Overview

1. Students completed pre-work as their "ticket for entry to simulation"
2. Students participated in a 2-part simulation using standardized patients
3. Debriefing occurred after each scenario, using the Advocacy-Inquiry technique
4. Unfolding scenario consisting of 2 parts:

#### Acute Scenario (Part 1)

- Patient with stroke symptoms arrives to the ED via EMS
- Patient and spouse are very anxious
- Students must:
  - Recognize cues and perform rapid nursing assessment
  - Obtain past medical history and consider TPA inclusion/exclusion criteria
  - Maintain aspiration precautions
  - Effectively communicate with the healthcare provider
  - Provide psychosocial support and education to the patient and spouse

#### Routine Care Scenario (Part 2)

- Same patient, 3 days later on the stroke unit
- Patient continues to experience significant deficits and displays impulsive behavior
- Students must:
  - Administer the scheduled antihypertensive medication and decide whether to administer the PRN antihypertensive medication
  - Safely mobilize the patient out of bed
  - Maintain aspiration precautions while administering medications
  - Establish effective communication with the patient
  - Provide psychosocial support and resources to the patient and spouse

Action	Needs Improvement	Done Well
Identifies chief complaint		
Recognizes symptoms associated with stroke		
Performs: FAST assessment, finger stick glucose		
Monitors:		
↳ Vital signs		
↳ Maintains NPO status		
↳ Cardiac rhythm		
Applies nasal cannula for O2 sat below 92%		
Notifies MD		
↳ Gives report using SBAR format		
↳ Uses closed loop communication		
Collects additional assessment data		
↳ Relevant history		
↳ Current medications		
Initiates diagnostics		
↳ Lab orders		
↳ States need for EKG		
↳ States need for CT		
States need for IV		
Discusses indications/contraindications for fibrinolytic therapy with patient and spouse		
Implements focused neuro assessment		
Initiates patient/family therapeutic communication		
Shares assessment data with team		
Informs team of actions/intended actions		



### Results

- Students reported:
  - Expanded stroke knowledge
  - Improved confidence in their abilities
  - Development of critical thinking and clinical reasoning skills
  - Debriefing technique created a safe environment and was constructive for learning
  - Stroke simulation facilitated connection to didactic content
- Faculty noted:
  - Marked performance improvement when students were given the opportunity to repeat scenario after debriefing
  - Improved level of student assertion when communicating with the healthcare provider
  - Debriefing revealed students' thought processes in clinical judgment
  - Simulation and debriefing allowed real-life connections to the didactic content from the course
- Limitations:
  - Various actors depicting the patient and spouse led to inconsistent portrayal of the stroke symptoms and patient/family anxiety
  - Use of standardized patients can be financially infeasible for some programs

### Conclusion & Practice Implications

- Unfolding stroke simulations can expand necessary nursing skills for students, preparing them for the clinical care of patients experiencing this common condition
- Implementation of unfolding simulation scenarios across nursing curricula may facilitate the development of clinical judgment in acute and routine situations

#### References:

- Medley, C.F., & Horne, C. (2005). Using simulation technology for undergraduate nursing education. *Journal of Nursing Education*, 44(1), 31-34.
- Zarandona, J., Hoyos Cillero, I., & Arrue, M. (2019). Nursing students' misunderstandings when learning about stroke care: A phenomenographic study. *Nurse Education Today*, 73, 54-59. <https://doi.org/10.1016/j.nedt.2018.11.013>