Specialized Care Plans Needed for Traumatic Brain Injury Patients

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Traumatic Brain Injuries

- Each year in the United States, traumatic brain injuries (TBIs) are responsible for more than 200,000 hospital admissions and 3.2 billion dollars spent on healthcare.
- For children and young adults, TBIs are the primary cause of death and disability.
- A gap in knowledge exists for the standardized treatment of these patients, which leads to inconsistency in diagnoses necessary for quality patient care.
- No guidelines are currently available in the United States for the management of moderate TBI patients.
- Articles were found using CINAHL by searching key words such as "brain injury," "head injury," and "traumatic brain injury." The Johns Hopkins Evidence-Rating Scale.

Effect of Early Intervention

- Retrospective Analysis Study
  - Examines the importance of early identification of TBI patients.
  - Sample – 134 moderate to severe TBI patients
  - Early identification leads to an efficient transfer to rehabilitation which is found to be associated with reduced length of stay and higher functional gains at discharge.
  - Initial GCS score, post-traumatic amnesia duration, and time spent in rehabilitation are also factors affecting the level of function measured at discharge.
  - Level III-B

Knowledge gaps exist in the care of TBI patients. Based on new treatment recommendations emphasizing symptom assessment and brain rest guidelines for optimal recovery. Early identification leads to an efficient transfer to rehabilitation which is found to be associated with reduced length of stay and higher functional gains at discharge. Initial GCS score, post-traumatic amnesia duration, and time spent in rehabilitation are also factors affecting the level of function measured at discharge.

Effect of an Education Intervention on Nursing Staff

- Quasi-experimental pretest-posttest study
  - Based on new treatment recommendations emphasizing symptom assessment and brain rest guidelines for optimal recovery.
  - Sample – 25 pediatric trauma nurses
  - Multiple-choice questions regarding knowledge and confidence in patient care were assessed before and 1 month after an educational seminar.
  - Knowledge gaps exist in the care of TBI patients.
  - Keeping trauma staff well educated on current guidelines and best practices is essential.
  - Level II-B

Nursing Interventions

- Prospective Factorial Survey using quantitative and qualitative analyses
  - Examined the routine interventions performed by nurses, and how patient outcomes were affected.
  - Sample - 67 intensive care unit nurses
  - Without specific guidelines, nurses have a degree of autonomy.
  - 4 categories of interventions: neuro-physiological, psychosocial, injury prevention and maintaining therapeutic milieu.
  - Nurses play an intricate role in patient care that requires extensive knowledge, technical skills and interpersonal skills.
  - Level III-A


Summary

- TBI patients require meticulous care with close monitoring since even a small change can indicate a big problem. Nurses who play a key role in caring for these patients are in need of a vast amount of knowledge to recognize when interventions are needed. When nursing education about patient care is a priority, hospitals can expect efficient care and better patient outcomes.
- The research recommends increasing knowledge of specific nursing interventions routinely performed on TBI patients so standardized treatment and best practice guidelines can be established. This knowledge, when put into practice can lead to earlier diagnosis and shorter rehabilitation stay, both of which have resulted in better patient outcomes.
- One way these goals could be accomplished would be incorporating educational opportunities at different times of the year for health care workers to attend in order to stay current on best-practice guidelines. Another option would be having clearly documented patient care priorities for workers to follow and reference throughout treatment.

Graphics sources:
Stone, P. (2013). The basics everyone should know about TBI. Neurologic Rehabilitation Institute Brookhaven Hospital. www.traumaticbraininjury.net