



Evaluation of Staff Nurses' Knowledge Regarding the Glasgow Coma Scale (GCS)

Mrs. G. Geethavani¹, Prof. Dr. Peter Jasper Youtham²

¹Research Scholar, Malwanchal University

²Research Supervisor, Malwanchal University.

Introduction

A traumatic brain injury (TBI) is the result of any kind of head trauma, whether it be blunt or penetrating. A traumatic brain injury (TBI) may occur from a blow to the head or from an object penetrating the skull and entering the brain. The severity of the brain damage after a traumatic brain injury (TBI) determines the spectrum of symptoms that may be experienced. This illness may have mild consequences, like a momentary alteration in awareness, or severe ones, such as persistent unconsciousness, a coma, or even death.

To assess those who have recently sustained a brain injury, the Glasgow Coma Scale (GCS) was developed in 1974. Patients who have had a stroke, aneurysm, or other kinds of acute or severe brain injury may have their degrees of consciousness communicated using the Glasgow Coma Scale (GCS). Graham Teasdale and B. J. Jennett, neurosurgery professors at the University of Glasgow's Institute of Neurological Sciences, created the Glasgow Acute Physiology and Chronic Health Evaluation Scale (GAPCHS), which is the gold standard for all acute medical and trauma patients around the world.

The GCS is a dependable and objective instrument used by seasoned medical professionals; therefore, nurses and nursing students should get familiar with it regardless of where they are stationed or want to study. Nurses may be required to administer GCSs in a variety of situations, including the emergency room and the intensive care unit (ICU).

In order to properly administer and interpret the Glasgow Coma Scale, a tool used by nurses in the evaluation of patients with traumatic brain injury, nurses must first grasp its purpose. The first step in utilising the scale properly is determining which patients need to be rated. Nurses providing care for these patients must have the capacity to correctly evaluate GCS scores. If the grading system can detect deterioration at an early stage, it may be of great assistance to patients in these instances. Research suggests that by assessing the patient's Glasgow Coma Scale (GCS) from the outset, unnecessary procedures may be avoided.

Methodology

Research Project Design

The nurses' situational awareness was measured using a quantitative cross-sectional approach. It was decided to employ a simple sampling technique. In total, 200 RNs from Index Medical College Indore participated. The inquiry took place at Index Medical College in Indore. Information was gathered through the use of questionnaires. It has split in two now, into two separate halves. The first section, "Part A," consists of four questions on the respondent's demographic information, such as age, education, gender, and length of service. We will give you the correct answers to the 25 multiple-choice questions on consciousness according to the Glasgow Coma Scale that may be found in Section B (GCS). This information was gathered from March 2021 to September 2021. One hundred questionnaires were sent to eligible registered nurses. Each nurse was given a questionnaire that could be completed in around fifteen to twenty minutes and then returned to the research team. The Statistical Package for the Social Sciences (SPSS) version 21.0 for Windows was used to analyse the data in this study. Chi-square analysis and descriptive statistics were employed to assess the correctness of the presumption. Half of the nurses who participated in the study understood the scale's original aim.

Results

Only 5.5 percent gave the correct answer when asked which portion of the brain evaluates eye opening, whereas 32.7 percent correctly identified the area responsible for assessing verbal responses, and 45.2 percent correctly identified the region responsible for evaluating motor responses.

Those who got it right could identify the various components of the Glasgow Coma Scale 75% of the time. Participants knew that the Glasgow Coma Scale did not take vital signs into consideration in 67% of cases. The optimal motor response was identified by just 32% of the nurses, whereas 55% of

the nurses could do so for a tetraplegic patient. 82% could name the lowest score on the Glasgow Coma Scale, but only 64% could name the percentage at which a patient was considered to be comatose.

Only around a quarter of respondents (22.9%) answered the question about score drops correctly. Eighty-nine point seven percent of respondents were able to correctly respond to a question about patients' vocal replies, and sixty-three percent agreed that the Glasgow Coma Scale could be assessed on an intubated patient. However, when patients' motor responses were assessed in reaction to a pain stimulus, only 14.9% provided the proper answer, whereas 74.5% of patients who had been in an RTA (road traffic accident) gave the correct response. This study showed that nurses didn't know enough about GCS to tell when a patient was getting worse and choose the best motor response to a painful stimulus.

Only 13.01 percent of nurses questioned had expertise in the 80th to 100th percentile on how to assess a patient's overall status using the Glasgow Coma Scale (GCS). In other words, there is a strong link between intelligence and school success. The researchers discovered a statistically significant relationship between the ages of participants and their degrees of awareness.

Conclusion

Based on the data, it seems that being older correlates with learning more. Thirteen percent (13.1%) of nurses said they were GCS specialists, according to this survey. These findings encourage insight into the significance of knowledge and education in evaluating GCS performance. Training and expertise with the GCS instrument cannot be overstated.

References

- Teasdale GM, Jennett B (1974) Assessment of coma and impaired Consciousness: a practical scale. *Lancet* 2: 81-84.
- Jennett B, Teasdale G (1982) *Management of Head Injuries*. Published by F. A. Davis Company, Philadelphia 42: 361
- Jennett B (2005) Development of Glasgow coma and outcome scales. *Nepal Journal of Neuroscience* 2: 24-28.
- Teasdale G (1975) Acute impairment of brain function-1. Assessing conscious level. *Nursing times* 71: 914-917
- Teasdale G, Galbraith S, Clarke K (1975) Acute impairment of brain function- 2: observation record chart. *Nursing Times* 71: 972-973.
- Jennett B (1996) Epidemiology of head injury. *J Neurol Neurosurg Psychiat* 60: 362-369.
- SK Kochar (2013) *Principle and practice of Trauma care*. Jaypee Brothers Medical Publishers (P) Ltd: New Delhi 2nd edition 162-189.