



## KNOWLEDGE OF STAFF NURSES REGARDING MANAGEMENT OF PATIENTS WITH BRAIN INJURY IN A SELECTED NEURO CENTRE, BANGALORE: A PILOT APPROACH

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### ABSTRACT

Traumatic brain injury (TBI) is a complex injury with a broad spectrum of symptoms and disabilities. TBI has been called a "silent epidemic." It is essential for nursing personnel to have a clear picture of TBI for identification of early deterioration of patient condition and effective management to prevent inherent dangers. The present study aimed to assess the level of knowledge of staff nurses regarding the management of patients with brain injury in a selected neurocentre, Bangalore. A non experimental descriptive research design was adopted for the study. The study was done in a selected neuro centre among 20 staff nurses, who met the inclusion criteria. Study samples were entrolled to the study by convenient sampling technique. The tools used in the study were demographic performa and structured interview schedule. The data were analysed by descriptive and inferential statistics. The findings of the study showed that 70% of the staff nurses has average knowledge on management of patients with brain injury and the mean knowledge score was 8.8. It also revealed that there is no significant association between the level of knowledge of staff nurses regarding management of brain injury and demographic variables. Finally the study concluded, majority of the staff nurses were having average level of knowledge regarding management of patients with brain injury.

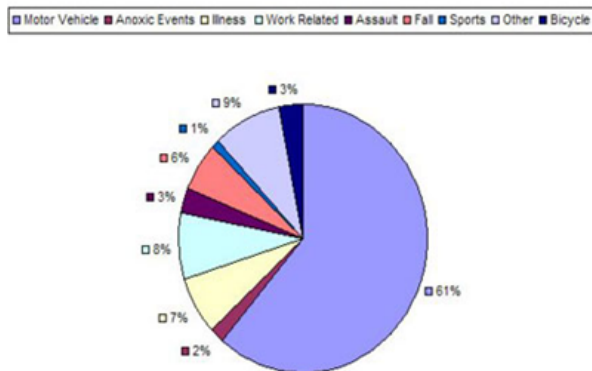
**KEYWORDS :** knowledge, staff nurse, brain injury

### INTRODUCTION

Traumatic brain injury (TBI), or acquired brain injury, can be defined as a traumatic insult to the brain that is capable of producing physical, intellectual, emotional, social, and vocational changes.<sup>1</sup>

Traumatic Brain Injury (TBI) is a significant public health problem worldwide and is predicted to surpass many diseases as a major cause of death and disability by the year 2020<sup>2</sup>. The majority of TBI cases (60%) are a result of road traffic injuries, followed by falls (20-30%), and violence (10%). In comparison to all other global regions, Asia has the highest percentage of TBI-related outcomes as a result of falls (77%) and other unintentional injuries (57%).<sup>3</sup> The cerebral cortex can become bruised - contused - when the head strikes a hard object (or a hard object strikes the head) or, the deep white matter can suffer diffuse axonal injury when the head is whiplashed without hitting a hard object (or being hit by one). In serious whiplash injuries, the axons are stretched so much that they are damaged.<sup>4</sup>

Causes of TBI in Adults



Brain injury holds a vast area of significance in emergency management and critical care. Very early after admission to the emergency department, the attention is focused on appropriate management for the prevention of secondary brain damage. Brain injury patients may be admitted to the neuroscience critical unit from the emergency department or after resuscitation, stabilization or surgical repair for their injuries. The nurses working in these areas should have adequate knowledge and be skill enough to anticipate and tackle the emergencies based on the clinical picture and monitoring parameters. For this the nurses should have a thorough base of knowledge.

Role of nurses in care of patients with brain injury is tremendous. Today nursing is considered as a discipline of higher technology coupled with a wealth of complex information. Nurse's role is to apply

this knowledge in an efficient and cost effective manner. It is essential for nursing and medical personnel who are responsible for effective management of brain injury should have clear picture of the condition, areas affected, accurate diagnosis, watchful observation, identification of early deterioration of patient condition based on clinical parameters, effective management, skills to introduce and manage with techniques, peculiarities, and above all its inherent dangers. They need to have knowledge and skill in care of patients with brain injury in order to prevent development of complications.

### Statement of the problem

A descriptive study to assess the level of knowledge among staff nurses regarding management of patients with brain injury in a selected neuro centre, Bangalore.

### Objectives of the study

1. To assess the level of knowledge among staff nurses regarding management of patients with brain injury.
2. To find out the association between level of knowledge of staff nurses and selected demographic variables.

### Operational definitions

**Knowledge:** Knowledge refers to the scores the staff nurses are able to obtain in response to the questions relating to the management of brain injury.

**Staff Nurses:** Staff nurses refers to those nurses with GNM, Basic B.Sc. or Post B.Sc. nursing qualification working in emergency department and Neuro ICUs and having an experience more than 6 months.

**Brain Injury:** Brain injury refers to a traumatic insult to the brain that is capable of producing physical, intellectual, emotional, social, and vocational changes.

### Research Methodology

A quantitative, descriptive survey approach was adopted for the study. The study was conducted among staff nurses working in the emergency department and neuro ICU in a selected neuro centre, Bangalore. Twenty samples were selected by using convenient sampling. The data collection tool used for the study was demographic performa and structured interview schedule to assess the knowledge of staff nurses regarding management of patients with brain injury.

Demographic variables of staff nurses consisting of 4 items which include age, gender, educational qualification and years of experience. A structured interview schedule consisting of 15 questions on management of patients with brain injury was used to assess the level of knowledge.

The study was conducted after obtaining the formal permission from the authorities. The purpose of the study was explained and informed consent was obtained. Confidentiality was assured to all the samples. A structured interview method was used by researcher to collect information from staff nurses. A score of one was given to correct responses and a score of zero was given to incorrect responses. An average of 10 minutes was taken by the participants to answer the questions asked by investigator.

**Results**

The collected data was analysed using descriptive and inferential statistics and the study findings are organised under following headings.

**Section I: Description of the sample characteristics**

Most of subjects (8) was aged either 20-29 or 30-39 years and least (4) were aged 40-49 years. Majority of the subjects (15) were females. Most of the subjects (9) had B. Sc. Nursing degree and least (3) had Post Basic Nursing Degree. Majority of the subjects (8) had 2-4 years of experience.

**Section II: Description of level of knowledge of Staff nurses regarding management of patients with brain injury.**

**Table 1: Mean, mean percentage and standard deviation of knowledge scores of staff nurses regarding the management of patient with brain injury.**

N = 20

Sl No	Aspects of Knowledge	Maximum score	Mean	Mean percentage	Standard deviation
1.	Knowledge on management of patients with brain injury.	15	8.8	44%	1.964

The table 1 shows that the knowledge mean of staff nurses regarding management of patient with brain injury was 8.8 with standard deviation of 1.964 and mean percentage of 44%.

**Table 2 : Frequency and percentage distribution of level of knowledge of staff nurses regarding management of patients with brain injury.**

N = 10

Sl No	Level of Knowledge	Poor knowledge < 33%		Average knowledge 33-66%		Good knowledge > 66%	
		f	%	f	%	f	%
1	Knowledge on management of patients with brain injury.	0	0	14	70	6	30

The data presented in the table 2 shows that Majority of staff nurses 14(70%) had average knowledge and least 6(30%) had good knowledge regarding management of patients with brain injury.

**Section III: Association of level of knowledge of staff nurses with selected demographic variables.**

**Table 3: Association between knowledge of staff nurses regarding brain injury and selected demographic variables.**

N=20

Sl. No	Variables	χ <sup>2</sup> value	df	Table value	P value	Inference
1.	Age	2.0000	3	7.815	P>0.05	Not significant
2.	Gender	0.5330	1	3.841	P>0.05	Not significant
3.	Educational qualification	1.0072	3	7.815	P>0.05	Not significant
4.	Years of experience	1.6249	3	7.815	P>0.05	Not significant

The data presented in the table 3 shows that there is no association with (χ<sup>2</sup> = 2) age, (χ<sup>2</sup> =0.533) gender, (χ<sup>2</sup> = 1.0072) educational qualification, (χ<sup>2</sup> = 1.6249) and for these variables the null hypothesis was accepted and hence research hypothesis was rejected.

**Conclusion**

The present study was conducted with the objective of assessing the level of knowledge among staff nurses regarding management of patients with brain injury in a selected neuro centre, Bangalore. The

results revealed that majority of patients 14(70%) were having average knowledge and 6(30%) were having good knowledge. There was no significant association between the level of knowledge of staff nurse and selected demographic variables.

**References**

- Barker E. Neuroscience Nursing A spectrum of care. 3rd edition Greenville, Mosby Publications; 2004
- Hickey JV. The clinical practice of neurological and neurosurgical nursing. 5th edition. Philadelphia: JB Lippincott; 2000
- http://www.pakjns.com/Previous/Archieved/jan-Mar09/contents/docs/27\_perspective.pdf.
- http://www.braininjury.com
- Krishnan RN, Krishnan P, Darshan K. Knowledge of staff nurses on nursing activities to be carried out in an emergency department. VinayakaMissionsAnnapoornaCollege of Nursing, Salem, Tamilnadu, India.
- B. Vasanthi, G. Anand Kumar, V.P. Chandrasekaran, P.N. Pandian ATLS awareness: the immediate necessity for emergency rooms in Salem. VinayakaMissionsAnnapoorna College of Nursing, Salem, Tamilnadu, India
- Thompson HJ, Kirkness CJ, Mitchell PH Intensive care unit management of fever following traumatic brain injury. Biobehavioral Nursing and Health Systems, The University of Washington, Seattle, WA 98195-7266, United States.
- Polit DF, Beck TC. Nursing research, Principles and methods. 7th Ed. Philadelphia: Lippincott Company Williams and Wilkins; 2004
- Burns N, Grove SK. The practice of nursing research. 5th ed. Philadelphia : W B Saunders Company; 2005.