

**Nurses' Performance Regarding  
Patient with Traumatic Head  
Injury in Intensive  
Care Unit**

**Thesis**

*Submitted for Partial Fulfillment of the Requirement  
of Master Degree in medical surgical  
"Critical Care Nursing"*

**By**

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2019**

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## List of Abbreviations

| Abb.         | Full term                                            |
|--------------|------------------------------------------------------|
| <b>ABCDE</b> | Airway, Breathing, Circulation, Disability, Exposure |
| <b>B.S.N</b> | Bachelor Science Nursing                             |
| <b>CCNs</b>  | Critical Care Nurses                                 |
| <b>CCU</b>   | Critical Care Unit                                   |
| <b>CDC</b>   | Centers for Disease Control                          |
| <b>CNS</b>   | Central Nervous System                               |
| <b>CPR</b>   | Cardiopulmonary Resuscitation                        |
| <b>DVT</b>   | Deep Venous Thrombosis                               |
| <b>GCS</b>   | Glasgow Coma Scale                                   |
| <b>ICU</b>   | Intensive Care Unit                                  |
| <b>NGT</b>   | Nasogastric Tube                                     |
| <b>THI</b>   | Traumatic Head Injury                                |
| <b>U.S</b>   | Untie State                                          |

## **Nurses' Performance Regarding Patient with Traumatic Head Injury in Intensive Care Unit**

### **Abstract**

**Introduction** Head injury is a trauma to the head that may or may not include injury to the brain .Traumatic head injury (THI) is the leading cause of death and disability in young adults in the developed world. **The aim of this study** was to assess nurses 'Performance regarding caring of Patient with traumatic head injury in Intensive care unit. **Design:** A descriptive exploratory study **Setting:** the study was conducted in the intensive care unit (ICU) at Ain shams University Hospital. **Study Subjects:** A convenience sample of nurses (No=40). **Data collection tools:** Nurses' Self-administered questionnaire and Observational checklists of caring of traumatic head injury. **Results:** Approximately 25% of the studied nurses had satisfactory level about total knowledge regarding caring of traumatic head injury and 20% of the studied nurses had unsatisfactory level regarding total practice about traumatic head injury, there was statistically significant relation between total knowledge and total practice. **Conclusion:** Based on the study findings, most of the studied nurses at critical care unit had unsatisfactory level of knowledge and satisfactory level about practice regarding caring of patients with traumatic head injury in intensive care unit. **Recommendation:** Further studied is recommended to evaluate the reflection of in-service training program regarding caring of patients with traumatic head injury in intensive care units on nurses' performance and consequently on the patients' outcome.

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**Keywords:** intensive care unit, nurses' Performance, traumatic head injury

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## Introduction

Head injury is a trauma to the head that may or may not involve injury to the brain. Traumatic head injury (THI) is the leading cause of death and disability in young adults in the developed countries. In the UK about 1.4 million patients per year suffer head injuries. Although the majority of injuries are mild, around 10.9% are classified as moderate or severe and many patients are left with significant disability. The incidence is increasing in lower income countries (*Alberts & Cherian, 2014*).

Traumatic head Injury is a major cause of death and disability worldwide. THI is also a major concern for elderly individuals, with a high rate of death and hospitalization due to falls among people age 75 and older. Depending on the severity of injury, THI can have a lasting impact on quality of life for survivors of all ages – impairing thinking, decision making and reasoning, concentration, memory, movement, and/or sensation (e.g., vision or hearing), and causing emotional problems (personality changes, impulsivity, anxiety, and depression) and epilepsy. The 20th century saw developments in diagnosis and treatment that decreased death rates and improved outcome (*Crompton et al., 2016*).

Traumatic head Injury can be from rigorous and lasting disability to more subtle functional and cognitive difficulties that often go undetected during initial evaluation. These problems may emerge days later. Headache, vertigo, confusion, and fatigue tend to start immediately after an injury, but dissolve over time. Emotional symptoms such as frustration and irritability trend to develop later on during the recovery period. A lot of the signs and symptoms can be easily missed as people may appear healthy even though they act or feel different. Many of the symptoms overlap with other conditions, such as depression or sleep disorders. If any of the following symptoms appear suddenly or worsen over time following a THI, especially within the first 24 hours after the injury, people should see a medical professional on an emergency basis (**Burges et al., 2016**).

The type of injury is another determinant of the effect on the brain. Some injuries are considered primary, meaning the damage is immediate. Other consequences of THI can be secondary, meaning they can occur gradually over the course of hours, days, or weeks. These secondary head injuries are the result of reactive processes that occur after the initial head trauma (**Kwasnica et al., 2016**).

Head injuries can be classified into mild, moderate, and severe categories. The Glasgow Coma Scale (GCS), the most

commonly used system for classifying THI severity, grades a person's level of consciousness on a scale of 3–15 based on verbal, motor, and eye-opening reactions to stimuli. In general, it is agreed that a THI with a GCS of 13 or above is mild, 9–12 is moderate, and 8 or below is severe (**Saxena, 2014**).

The nurse plays vital role in caring for patient with Traumatic head injury. Nurses are responsible for a complex performance that implies specific set of knowledge and practice needed for providing specific nursing implementation with Traumatic head injury (**Juengst et al., 2015**).

Nurses play an important role in the care of patients with THI. In the acute phase, Nurses do accurate assessment and monitoring is crucial in detecting further deterioration and preventing complications. In the longer term, nursing care is the instrument in the patients' rehabilitation journey and also supporting families is a crucial part of this holistic care and needs to be planned for carefully. Without continued support for both patient and family, the challenges of head injury may be difficult to cope with (**Juengst et al., 2015**).

The World Health Organization predicting that THI and road traffic accidents will be the third greatest cause of disease and injury world wide by 2020. In our ageing

population the number of elderly patients presenting with THI has increased and age appears to be an independent risk factor for poor outcome. Consequently THI presents a major health and socioeconomic problem (*Maas et al., 2008*).

### **Significance of the study**

Traumatic head Injury continues to be an enormous public health problem, even with modern medicine in the 21st century. Most patients with THI (75-80%) have mild head injuries; the remaining injuries are divided equally between moderate and severe categories. The cost to society of THI is staggering, from both an economic and an emotional standpoint. Almost 100% of persons with severe head injury and as many as two thirds of those with moderate head injury will be permanently disabled in some fashion and will not return to their premorbid level of function (*Baltopoulos., 2015*).

Nurses are becoming increasingly responsible for management of the care of those patients. Nurses' knowledge and practice can be crucial and constructive in patients' training and hence the reduction of complications during the life with head injury. The nurses' performance has a vital role in reducing the morbidity and mortality of patient with head injury (*Deb et al., 2015*).

## Aim of the study

This study aims to assess the Nurses performance regarding care of Patients with Traumatic Head Injury In intensive Care Unit through the following:

- 1- Assess nurses' level of knowledge regarding care of Patients with Traumatic head injury.
- 2- Assess nurses' practice regarding care of Patient with Traumatic head injury.

### **Operational definition:**

Nurses' performance refers to Nurses knowledge and practice.

### **Research Questions:**

The current study will answer the following questions:

- 1- What are the nurses' levels of knowledge regarding care of Patients with Traumatic head injury?
- 2- What are the nurses' levels of practices regarding care of Patients with Traumatic head injury?