

**Nurses' Performance Regarding Care  
of Children with Neurological  
Disorders**

**Thesis**

*Submitted For Partial Fulfillment of the Master  
Degree in Pediatric Nursing Science*

**By**

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## List of Abbreviation

<i>Abbrev.</i>	:	<i>Full-term</i>
<b>ADHD</b>	:	Attention Deficit Hyperactivity Disorder
<b>AT/RTS</b>	:	Atypical Teratoid/Rhabdoid Tumors
<b>CP</b>	:	Cerebral Palsy
<b>CSF</b>	:	Cerebro Spinal Fluid
<b>EEG</b>	:	Electro Encephalo Gram
<b>EMG</b>	:	Electro Myo Gram
<b>GCS</b>	:	Glasgow Coma Scale
<b>HIE</b>	:	Hypoxic Ischemic Encephalopathy
<b>IICP</b>	:	Increase Intra Cranial Pressure
<b>MRI</b>	:	Magnetic Resonance Image
<b>NTD</b>	:	Neural Tube Defect
<b>PKU</b>	:	Phenylketonuria
<b>PPPD</b>	:	Persistent Postural Perceptual Dizziness
<b>TBI</b>	:	Traumatic Brain Injury
<b>THI</b>	:	Traumatic Head Injury
<b>TORC</b>	:	Toxoplasmosis, Rubella, Cytomegalovirus, and Herpes Simplex virus
<b>UMNS</b>	:	Upper motor neurons

## Abstract

The term “neurologic disorder” applies to any condition that is caused by a dysfunction in part of the brain or nervous system, resulting in physical and/or psychological symptoms. **Aim:** This study aimed to assess nurses’ performance regarding care of children with neurological disorders. **Research design:** A descriptive research design used in this study. **Setting:** The study was conducted at Neurosurgery Intensive Care Unit and Neurosurgery Department in El-Demerdash hospital which affiliated to Ain Shams University Hospitals. **Research Subject:** A convenient sample of (50) nurses: were included in this study. **Tools of data collection:** Two tools were used Included **I.** Interviewing questionnaire sheet to assess nurses’ knowledge regarding to care of children with neurological disorders **II.** Observational checklist to assess nurses’ practice regarding care of children with neurological disorders. **Results:** less than two thirds of the studied nurses had unsatisfactory knowledge in additional to More than half of them were incompetent practices regarding care of children with neurological disorders. **Conclusion:** The current study concluded that, there was a strong positive correlation between nurses’ level of knowledge and their level of practices. **Recommendation:** The study recommended that importance of implementing an educational training program for nurses in neurosurgery intensive care units and neurosurgery department regarding neurological disorders and standardized nursing procedure should be used to guide the nurses in dealing with children suffering from neurological disorders.

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**Key words:** neurological disorders, nurses’ performance, children.

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## Introduction

Neurological disorders are any disorders of the nervous system lead to abnormalities in the structural, biochemical or electrical framework of the brain, spinal cord or other nerves. It can result in a range of symptoms on where damage occurs. Areas that control movement, communication, vision, hearing or thinking can be affected. Neurologic disorders are wide ranging, they have various causes, complications and outcomes, however it may result in additional needs requiring life-long management (*WHO, 2014*).

Symptoms of neurologic disorders vary in its severity, however, physical, cognitive (or thinking), emotional and behavioral symptoms may be present with specific disorders having combinations or clusters of these symptoms. Many neurologic disorders emerge during the early years of development and may be diagnosed at birth. Some are diagnosed later because symptoms only appear when the child misses developmental milestones or has developmental difficulties such as in autism, a damaging infection occurs such as in meningitis and an accident causes brain injury (stroke, trauma, hypoxia) (*Ihsan et al., 2013*).

There are many causes of neurological disorders, which can be grouped as genetic, prenatal, perinatal, and postnatal. Many of the causes of neurological disorders are more common in resource-poor countries. Therefore, prevalence of neurological disability is expected to be higher in these countries (*Kumar et al., 2013*).

Neurological assessment is a method of obtaining specific information related to the function of a patient's nervous system. Neurologic observations allow monitoring and evaluation of changes in the nervous system that later on aid in the diagnosis and treatment, which on pediatric patient prognosis and rehabilitation (*Restrepo, 2013*).

Consistent, and well-documented neurological assessments are the most important aspect of nursing care for the pediatric neurosurgical patient. Subtle changes in the neurological assessment may first be noted by a bedside nurse. Keen observation skills and the ability to extract information about a patients' baseline level of neurological function from the parents or primary caregivers are essential. The nurses' response to assessment changes is essential to the prevention of secondary neurological sequel and other

complications associated with neurological disorders (*Cartwright & Wallace, 2017*).

### **Significance of the study:**

Neurological disorders in children are important causes of mortality and morbidity around the world, every year ten million children die in developing countries before they reach their 5th birthday. 20% to 40% of their deaths are due to neurological disorders (*Sood1, 2014*). There are a wide spectrums of neurological disorders occur and constitute a huge burden for children in Egypt (*Shora et al., 2015*).

Therefore, the nurses have an important role in neurological assessment which is a key component in the care of the neurological problems. Also, the nurse can help in the prevention of further complication and reduction of mortality due to neurological conditions which can be achieved through appropriate care. Consequently it is important to conduct this study to assess nurses' knowledge and practice concerning neurological disorders in children.

## **Aim of the Study**

### **The aim of the study is to:**

Assess nurses' performance regarding care of children with neurological disorders.

### **Research Question**

#### **The current study will answer the following questions:**

What is the nurses' knowledge regarding care of children with neurological disorders?

What is the nurses' practice regarding care of children with neurological disorders?