Assessment of Nurses' Performance Caring for Patients with Cerebrovascular Stroke In Intensive Care Unit

Thesis

Submitted for the Partial Fulfillment of the Master Degree

In

Nursing sciences

(Medical- Surgical Nursing)

By
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B.Sc. Nursing Science (2006)
Mansoura University

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Under Supervision of

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**Faculty of Nursing
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2012**

تقييم أداء الممرضات القائمين على رعاية مرضى السكتة الدماغية فى العناية المركزة

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SUMMARY

The CVS is the sudden appearance of neurological symptoms when sever interruption of the blood flow to the brain cell occurs leading to necrosis. The CVS is the third leading cause of death in the United States of America (USA), and the most common cause of long-term disability in adults. Over 150,000 people with CVS die each year. There are approximately 5.5 million CVS survivors in the USA and it is estimated that about 13 million individuals have sustained a so-called "silent" CVS **(NINDS, 2010).**

Knowledge and use of evidence-based practice are essential to ensure best nursing practice. Nurses must be knowledgeable of this Initiative to support clinical practice toward improved patients' outcomes. A high quality performance of the nurses would save much of the direct and indirect costs saving **(Duncan, 2005).**

It is important to assess the nurse's knowledge and practice to identify their actual performance for the patient with CVS, determine the comprehensive nursing care that necessary for prevention of complication which is increases a vital consideration in order to use as a guide for comprehensive

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Dedication

My Father......

My Mother....

My husband.....

My brothers & my friends.....

For their great help, encouragement, love.

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LIST OF ABBREVIATIONS

Abbreviation	Mean of abbreviation
AANN	The American Association of Neuroscience Nurses
ABG	Arterial Blood Gases
AEDs	Antiepileptic Drugs
ATP	Adenosine Tri-Phosphate
AVM	Arteriovenous Malformation
B S N	Bacheral science on nursing
BP	Blood Pressure
CNS	Central Nervous system
CSF	Cerebrospinal fluid
CT	Computed Tomography
CVAs	Cerebrovascular accidents
CVS	Cerebrovascular Stroke
DVT	Deep Venous Thrombosis
ECG	Electrocardiogram
EEG	Electroencephalogram
ICP	Intracranial Pressure
ICU	Intensive Care Unit
MCQ	Multiple Choice Questions
MRA	Magnetic Resonance Angiography
MRI	Magnetic Resonance Imaging
MRS	Magnetic Resonance Spectroscopy
PET	Positron Emission Tomography
ROM	Range Of Motion
rt-PA	Recombinant Tissue plasminogen activator
SPECT	Single Photon Emission Computed Tomography
TCD	Transcranial Doppler
TIAs	Transient Ischemic Attacks
USA	United States of America

LIST OF ABBREVIATIONS *(Cont.)*

Abbreviation	Mean of abbreviation
UTI	Urinary Tract Infection
UI	Urinary Incontenance
VEM	Very Early Mobilization
WHO	World Health Organization

Statistical Abbreviations

A	Cronbach's alpha score
No	Number
F-test	Fisher test
P	Probability that observed data is consistent with null hypothesis
R	Multiple correlation coefficients
SD	Sample standard deviation
%	Percentage
<	Greater than
>	Less than

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ABSTRACT

Cerebrovascular stroke (CVS) is the third leading cause of death in the United States of America (USA), and the most common cause of long-term disability in adults. Experts estimate up to 30% of all stroke patients will deteriorate in the first 24 hours. This statistic supports the need for intensive monitoring by nurses specifically trained in acute stroke care. **Aim of this study:** 1) Assessment of nurses' level of knowledge regarding caring for patients with cerebrovascular stroke in the Intensive Care Unit. 2) Assessment of nurses' level of practice regarding caring for patients with cerebrovascular stroke in the Intensive Care Unit. **Design**: A descriptive exploratory design was used. **Setting**: This study was conducted in Emergency Medicine ICU, Geriatric ICU and Neurological ICU at Ain Shams University Hospital. **Study subjects:** A convenience sample of all available nurses (no=40nurses) were included in this study. **Data collection tools:** self-administered questionnaire sheet and nurses' practice observational checklist. **Results:** 67.5% of the nurses had unsatisfactory knowledge and 100% had unsatisfactory practice regarding caring of patients with CVS in ICU. There is no statistical significance correlation between total nurses' knowledge and practice regarding caring for patients with CVS in ICU (r=+0.237 at P > 0.05). **Conclusion:** The current study concluded that, more than two third of the studied nurses at ICU had unsatisfactory knowledge & all of them had unsatisfactory practice regarding to caring for patients with CVS. **Recommendations:** The study recommended importance of implementing an educational training program for nurses about caring for patients with CVS.

Key words: Brain attack cerebrovascular accident.

INTRODUCTION

The central nervous system (CNS) is considered the master system of the body, it allows humans to interpret, use and act on the input from body senses. It also protects and maintains the integrity of normal functions of the body. Regardless of the dysfunctions in the nervous system can adversely affect the ability to think, reason, predict or carry out simple activity of daily living **(Broderick, 2007).**

Assessment of patient with stroke is an essential nursing skill that gathers clinical information to strengthen decisions about health interventions and priorities in patient care delivery. Neurological assessment of the acute stroke survivor provides the cornerstone for early diagnosis, appropriate prognostic evaluation and optimal management to obtain favorable patient outcomes. Nursing approach to neurological assessment has been enhanced in recent years through the development of new evidence-based assessment tools and the support of best practice guidelines (**Gocan & Fisher, 2008).**

The American Association of Neuroscience Nurses (AANN) supports the importance of nursing in the care of patient with cerebrovascular stroke (CVS). Nurses are the caregivers that have the most contact with the patient and have

the ability to notice subtle changes quickly. This quick assessment and report to the physician can make a difference in the outcome of the patient. Because "time is brain", nursing professionals must be knowledgeable about CVS care standards to manage these patients quickly and appropriately **(AANN, 2004).**

Care for patient with CVS is directed toward minimizing damage resulting from CVS, maintaining adequate cerebral perfusion and decreasing risk of further damage. The CVS management has two main phases: acute phase and rehabilitation phase. During the acute phase immediately after patient admission nursing care focuses on monitoring the patients neurological status, assessing the severity of CVS and preventing complications associated with immobility, hemiparesis, or any neurological deficit produced by CVS **(Ellis& Hartley, 2007).**

Assessment of the acute CVS survivor provides the cornerstone for early diagnosis, appropriate prognostic evaluation, and optimal management to obtain favorable patient outcomes. The basic assessment of the patient with acute CVS "primary and secondary assessment" should always begin with assessment of airway, breathing and circulation,