

Hanaa Mohammed

بسم الله الرحمن الرحيم

مركز الشبكات وتكنولوجيا المعلومات قسم التوثيق الإلكتروني





Safaa Mahmoud



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها على هذه الأقراص المدمجة قد أعدت دون أية تغيرات





Assessment of Nurses' Compliance during Caring of Neonates with Convulsions

Thesis

Submitted for Partial Fulfillment of the Requirements of Master Degree in **Pediatric Nursing**

By Hend Hussein Abdelhammed

(B.Sc. Nursing Science, 2011) Head Nurse in New Cairo Hospital

Faculty of Nursing Ain Shams University 2022

Assessment of Nurses' Compliance during Caring of Neonates with Convulsions

Thesis

Submitted for Partial Fulfillment of the Requirements of Master Degree in **Pediatric Nursing**

Supervised By

Prof. Sabah Saad Al Sharkawwi

Professor of Pediatric Nursing Faculty of Nursing - Ain Shams University

Dr. Bothyna Nader Sadek

Assistant Professor of Pediatric Nursing Faculty of Nursing - Ain Shams University

> Faculty of Nursing Ain Shams University 2022

Acknowledgments

First and foremost, I feel always indebted to **Allah** the Most Beneficent and Merciful.

I wish to express my deepest thanks, gratitude and appreciation to **Prof. Sabah Saad Al**Sharkawwi, Professor of Pediatric Nursing,
Faculty of Nursing, Ain Shams University, for her meticulous supervision, kind guidance, valuable instructions and generous help.

Special thanks are due to **Dr. Bothyna**Mader Sadek, Assistant Professor of Pediatric

Nursing, Faculty of Nursing, Ain Shams

University, for her sincere efforts, fruitful

encouragement.

I would like to express my hearty thanks to all my family for their support till this work was completed.

Hend Hussein Abdelhammed

Tist of Contents

Title	Page No.
List of Tables	i
List of Figures	iv
List of Abbreviations	vi
Abstract	viii
Introduction and Aim of the Study	1
Review of Literature	5
An overview about High Risk Neonates (HRN):	5
Neonatal Convulsion	8
Nurses Compliance during caring of Neonates with Convulsions	
Subject and Methods	58
Results	67
Discussion	105
Conclusion	122
Recommendations	123
Summary	124
References	137
Appendix I (Proocol)	167
Appendix II (Tools I)	184
Appendix III (Tools II)	198
Arabic Summary	

List of Tables

Table No.	Title	Page No.
Table (1):	Number and Percentage Distribu Studied Nurses' According Characteristics, (n = 60)	to their
Table (2):	Number and Percentage Distributed Studied Neonates According Characteristics, (n = 60)	to their
Table (3):	Number and Percentage Distribution Studied Neonates According to Recovery Procedures after Delivery	Received
Table (4):	Number and Percentage Distribution Studied Neonates According frequency and supportive received during convulsions, (n = 6)	to onset, procedures
Table (5):	Number and Percentage Distribution studied Nurses' Knowledge Regard Definition, Causes, Signs and Conformation of Neonatal Convulsion, (n = 60)	ding to the nplications
Table (6):	Number and Percentage Distributed Studied Nurses' Knowledge Regardance Types and characteristics of Convulsions, (n = 60)	arding the Neonatal
Table (7):	Number and Percentage Distribution Studied Nurses' Knowledge regression Neonatal Jitteriness and Convuls 60)	garding to sions, (n =
Table (8):	Number and Percentage Distribution Studied Nurses' Knowledge Neonates with Convulsions, (n = 6	Regarding

Tist of Tables cont...

Table No.	Title	Page No.
Table (9):	Number and Percentage Distributed Studied Nurses' Knowledge Research Administration of Calcium for neoconvulsions, (n = 60)	garding to nate's with
Table (10):	Number and Percentage Distribution Studied Nurses' Knowledge Real Anticonvulsant Drugs, (n = 60)	garding to
Table (11):	Number and Percentage Distribution Studied Nurses' Practices Oropharyngeal and Nasopharynge for Neonate's with convulsions, (n. 1998).	regarding eal Suction
Table (12):	Number and Percentage Distributed Studied Nurses' Practice regards Therapy Administerion during convulsions, (n = 60)	ng Oxygen attack of
Table (13):	Number and Percentage Distribution Studied Nurses' Practice regarding of Peripheral Cannula, (n = 60)	g Insertion
Table (14):	Number and Percentage Distributed Studied Nurses' Practice regarding Blood Sample, (n = 60)	ng Drawing
Table (15):	Number and Percentage Distribution Studied Nurses' Practice Administration of Anti-convulsary = 60)	regarding t Drugs, (n
Table (16):	Number and Percentage Distributed Studied Nurses' Practice Attaching the Neonate to Pulsed during Convulsion, (n = 60)	regarding Oximeter

Tist of Tables cont...

Table No.	Title	Page No.
Table (17):	Number and Percentage Distriction Studied Nurses' Practice regulations of the Studies of the Stu	garding Blood
Table (18):	Relation between the Stu Demographic Characteristics a Knowledge, (n= 60)	and their Total
Table (19):	Relation between the Stu- Characteristics and their Tota 60)	al Practice, (n=
Table (20):	Correlation between the St Total Knowledge and their regarding Care of Neor Convulsions, (n= 60)	Total Practice nates's with

List of Figures

Fig. No.	Title	Page No.
Figures of Review		
Figure 1:	Physiology of convulsion	9
Figure 2:	Infant of Diabetic Mother (IDF)	13
Figure 3:	Tonic convulsion	21
Figure 4:	EEG in neonates with convulsion	26
Figures of Results		
Figure (1):	Percentage Distribution of the Nurses' According to their Job Title,	
Figure (2):	Percentage Distribution of the Nurses' According to their Attendance of Training Programs, (r	Previous
Figure (3):	Percentage Distribution of the Nurses' According to their Frequency Previous Attendance of Training Processing (n = 60)	uency of Programs,
Figure (4):	Percentage Distribution of the Nurses regarding Name of Attendance of Training Programs (n	Previous
Figure (5):	Percentage Distribution of the Neonates According to their Gestat by weeks, (n = 60)	ional age
Figure (6):	Percentage Distribution of the Neonates According to their Gender,	

Tist of Figures cont...

Fig. No.	Title	Page No.
Figure (7):	Percentage Distribution of the Neonates According to their Delivery, (n = 60)	Type of
Figure (8):	Percentage Distribution of the Neonates According to their Approved Weight to Gestational Age, (n = 60).	priate of
Figure (9):	Percentage Distribution of the Neonates According to their Diagn 60)	osis, $(n =$
Figure (10):	Percentage Distribution of the Neonates According to the Pre Congenital Anomalies, (n = 60)	sence of
Figure (11):	Percentage Distribution of the Neonates According to the Convulsions, (n = 60)	Type of
Figure (12):	Percentage Distribution of the Neonates According to the Anticonvulsant Drugs Received,	e Type
Figure (13):	Percentage Distribution of the Nurses' Total Knowledge about Neonates with Convulsions, (n = 60)	Care of
Figure (14):	Percentage Distribution of the Nurses' Practice regarding to total Neonates's with Convulsions, (n = 6	l Care of

Tist of Abbreviations

Abb.	Full term
ARC	Arterial Blood Gases
	Anti_Epileptic Drugs
	Appropriate for Gestational Age Blood Glucose Level
	Broncho Pulmonary Dysplasia
BZDS	
	Complete Blood Count
	Cappillary Blood Count
	Central Nervous System
	Continuous Positive Airway Pressure
	Cardio Pulmonary Resusitation
	Cerebro Spinal Fluid
	Computed Temography
	Electro Encephalography
	Ettremely Low Birth Weight
ETT	
	Functional Residual Capacity
GADA	_
	Gamma Aminobutyric Acid
	Gestational Diabetes
	Hypoxic_Ischemic Encyphalopathy
HRN	_
	Infant of Diabetic Mother
	Inborn Errors Metabolism
IM	•
	Intra Uterin Growth Restriction
IV	
	Intra Ventricular Hemorrage
	Mean Airway Pressure
	Magenetic Resonance Imaging
	Meconium Stained Amniotic Fluid
NANDA	North American Nursing Diagnosis Association

Tist of Abbreviations cont...

Abb.	Full term
N. CD. D	
	. Nasal Continuous Positive Airway Pressure
NICUs	. Neonatal Intensive Care Unites
NJ	. Neonatal Jaundice
NP	. Nursing Process
NR	. Neonatal Resuscition
NS	. Neonatal Seizures
PEEP	. Peak End Expiratory Pressure
PIP	. Peak Inspiratory Pressure
PNA	Perinatal Asphyxia
PTBs	. Preterm Births
PU	.Pulmonary Surfactant
RDS	. Respiratory Distress Syndrome
SGA	. Small for Gestational Age
SIDS	. Sudden Infant Death Syndrome
TORCH	. Toxoplasmosis, Other infection, Rubella,
	Cytomegalovirus, Herps
TSB	. Total Serum Bilirubin
US	. Ultrasound
VDRL	. Venereal Disease Research
VT	. Ventricular Tachycardia
WHO	. World Health Organization

Assessment of Nurses' Compliance during Caring of Neonates with Convulsions

Hend Hussein Abdelhammed*, Prof. Sabah Saad Al Sharkawwi, **
Assist. Prof. Bothyna Nader***

B.Sc in Nursing Science
Professor of Pediatric Nursing, Faculty of Nursing - Ain Shams University
Assistant Professor of Pediatric Nursing, Faculty of Nursing - Ain Shams University

ABSTRACT

Back ground: Neonatal convulsions are one of the most serious neurological emergencies in neonates, which require immediate intervention. Management of neonatal convulsions in Neonatal Intensive Care Unit (NICU) is challenging. **Aim of the study:** the study aimed to assess of nurses' compliance during caring of neonates with convulsions at NICU. Research design: Descriptive design was utilized to conduct this study. Settings: The study was conducted at Neonatal Intensive Care Units at Pediatric Hospital and Maternity and Gynecological Hospital affiliated to Ain Shams University. **Subjects**: a convenient sample of 60 nurses and 60 neonates with convulsions at the previously mentioned settings over a six month periods. Tools: (I) Structure Questionnaire Format to assess nurse's demographic data and their knowledge regarding care of neonates with convulsions. (II) Observational checklist to assess nurses' practice regarding care of neonates with convulsions. **Results**: This study revealed that the mean age of the studied nurses was (28.85 ± 5.85) years, more than one third of the studied nurses had poor knowledge regarding to care of neonates with convulsions and nearly two thirds of them had competent level of practice regarding care of neonates with convulsions. There were significant positive correlation between nurses'total knowledge and their total practice. **Conclusion**: Based on the study findings, there was highly statistically significant relation between the studied nurses' performance and their years of experience, nurses' performance and their age and educational level there was no statistically significant relation between nurses' performance and their job title. There is a positive correlation between nurse's total knowledge and their practice. Recommendations: Providing continuous educational programs for care of neonates with convulsions.

Keywords: Convulsions, Compliance, Neonates, Nurses Knowledge, Practice.

INTRODUCTION

igh Risk Neonates (HRNs) is defined as any neonate at risk sustaining medical, developmental or physiological problem. High risk neonate is susceptible to morbidity and mortality because of dysmaturity, immaturity, physical disorders or complications during or after birth (*Silva et al.*, 2017).

Neonatal convulsion is a serious neurological emergency in the neonatal period. It is defined as paroxysmal alteration of neurologic function, including behavioral, motor, and/or autonomic function. Neonatal convulsion in the first week of life is associated with significant mortality and neuro-developmental disability (*Agarwal & Fox 2018*).

Worldwide, the incidence of convulsions in term neonates constitutes about 3 /1000 live births while, the incidence is even higher in preterm neonates, it constitutes about 57/1000 live births. Most (80%) of neonatal convulsions occur in the first 1–2 days to the first week of life (*Kneževic*, 2019).

The most common causes of neonatal convulsions include hypoxic-ischemic encephalopathy (HIE), intracranial hemorrhage, cerebral infarction, cerebral malformation, meningitis, septicemia, hypoglycemia, hypocalcaemia, hypomagnesaemia, hypo-/hypernatremia, inborn errors of