

شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلو

بسم الله الرحمن الرحيم





MONA MAGHRABY



شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلو



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



MONA MAGHRABY



شبكة المعلومات الجامعية التوثيق الإلكترونى والميكروفيلم

جامعة عين شمس التوثيق الإلكتروني والميكروفيلم قسم

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



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



MONA MAGHRABY

Assessment of Nurses' Competency Level Regarding the Care of Infants with Congenital Anomalies of Central Nervous System

Thesis

Submitted for partial fulfillment for the Master Degree in Pediatric Nursing

Supervised by

Prof. Sabah Saad Al-Sharkawi

Professor of Pediatric Nursing
Ex Dean of Faculty of Nursing, Ain Shams University
Faculty of Nursing, Ain Shams University

Prof. Hyam Refaat Tantawi

Professor of Pediatric Nursing
Vice dean of community affairs and environmental development
Faculty of Nursing, Ain Shams University

Faculty of Nursing Ain Shams University 2021

Assessment of Nurses' Competency Level Regarding the Care of Infants with Congenital Anomalies of Central Nervous System

Thesis

Submitted for partial fulfillment for the Master Degree in Pediatric Nursing

Ahmed Hosny Khedr

B.Sc.N Port Said University, 2012 Nursing Specialist at Mansoura University Children Hospital

Faculty of Nursing
Ain Shams University
2021



First and for most I feel always indebted to Allah, The Most Kind and Most Merciful.

I wish to express my deepest thanks and sincere appreciation to **Dr. Sabah Saad Al-Sharkawi**, Professor of Pediatric Nursing, Faculty of Nursing Ain Shams University for her great support and advice, her valuable remarks that gave me the confidence and encouragement to fulfill this work.

I express my special gratitude and appreciation to **Dr. Hyam Refaat Tantawi**, Professor of Pediatric Nursing, Faculty of Nursing Ain Shams University for her great support and advice, her valuable supervision, cooperation and direction that extended throughout this work.

I wish to convey my thanks to all nurses who gave their time, and participated in this work.

List of Content

Subject	Page No.
List of Tables	i
List of Figures	iv
List of Abbervations	vi
Abstract	viii
Introduction and Aim of the Study	1
Review of literature	
Overview about Congenital Anomalies of Central Nervous	5
System	
*A.Neural tube defects and associated spinal cord	
malformations:	6
-Types of neural tube defects	9
-Treatment of neural tube defects	18
-Nursing role in caring of infants with neural tube defects	19
*B.Disorders associated with and skull	
malformation (Hydrocephalus):	22
-Types of hydrocephalus	24
-Treatment of hydrocephalus	27
-Nursing role in caring of infants with hydrocephalus	29
*Competency in Nursing	32
Subjects and Methods	38
Results	48
Discussion	79
Conclusion & Recommendations	88
Summary	90
References	101
Appendices	
Arabic Summary	

List of Tables

Table No.	Title	Page No.
(1)	Distribution of the studied nurses according to their characteristics	49
(2)	Distribution of the studied infants according to their characteristics	51
(3)	Distribution of the studied nurses according to their knowledge about central nervous system anomalies	53
(4)	Distribution of the studied nurses according to their knowledge about neural tube defect	55
(5)	Distribution of the studied nurses according to their knowledge about hydrocephalus	56
(6)	Distribution of the studied nurses' practice regarding nursing assessment of infants with hydrocephalus	58
(7)	Distribution of the studied nurses' practice regarding preoperative care of infants with hydrocephalus	59
(8)	Distribution of the studied nurses' practice regarding postoperative care of infants with hydrocephalus	60

Table No.	Title	Page No.
(9)	Distribution of the studied nurses' practice regarding nursing assessment of infants with neural tube defect	61
(10)	Distribution of the studied nurses' practice regarding nursing management of infants with neural tube defect	62
(11)	Distribution of the studied nurses' practice regarding preoperative care of infants with Neural tube defect	64
(12)	Distribution of the studied nurses' practice regarding postoperative care of infants with neural tube defect	65
(13)	Distribution of the studied nurses' attitude toward infants with congenital anomalies of central nervous system	67
(14)	Relation between studied nurses' total knowledge and their characteristics	70
(15)	Relation between studied nurses' total practice and their characteristics	72
(16)	Relation between studied nurses' attitude and their characteristics	74

List of Tables

Table No.	Title	Page No.
(17)	Correlation between nurses' total knowledge and their total practice	76
(18)	Correlation between nurses' total knowledge and their attitude	77
(19)	Correlation between nurses' total practice and their attitude	78

List of Figures

Figure No.	Title	Page No.
	Figures of Review	
(1)	Different types of spina bifida	10
(2)	Occult Spina Bifida	11
(3)	Meningocele	12
(4)	Myelomeningocele	13
(5)	Anencephaly	14
(6)	Encephalocele	15
(7)	Differentiation between hydrocephalic infants	22
(8)	Hydrocephalus	23
Figures of Results		
(1)	Percentage distribution of the studied nurses according to their total knowledge about congenital anomalies of central nervous system	57

List of Figures

Figure No.	Title	Page No.
(2)	Percentage distribution of the studied nurses according to their total score of practice regarding congenital anomalies of central nervous system	66
(3)	Percentage distribution of the studied nurses according to their total score of attitude toward caring of infants with congenital anomalies of central nervous system	69

List of Abbreviations

Abbreviation	Full term
ADHD	Attention Deficit Hyperactivity Disorder
AEDs	Anti-Epileptic Drugs
AFAChE	Amniotic Fluid Acetylcholinesterase
AFAFP	Amniotic fluid alpha-fetoprotein
AFP	Alpha-Fetoprotein
CA	Congenital Anomalies
CDC	Centers for Disease Control and Prevention
CNS	Central Nervou System
CSF	Cerebro Spinal Fluid
CT	Computed Tomography
DNA	Deoxyribonucleic acid
ETV	Endoscopic Third Ventriculostomy
EVD	External Ventricular Drain
FDA	Food and Drug Administration
ICP	Intra Cranial Pressure
JNA	Japanese Nurses Association

List of Abberviations

MMC	Myelomenigocele
MRI	Magnetic Resonance Imaging
MSAFP	Maternal Serum Alpha-Fetoprotein
NINDS	National Institute of Neurological Disorders and Stroke
RNA	Ribonucleic Acid
SP	Spina Bifida
WHO	World Health Organization

Assessment of Nurses' Competency Level Regarding the Care of Infants with Congenital Anomalies of Central Nervous System

ABSTRACT

Background: Congenital anomalies (CA) of the Central Nervous System (CNS) are birth defects of the physical structure of the brain or spinal cord that occur during fetal intrauterine growth, some are caused by genetic factors and other by environmental factors. This study aimed to: Assess the nurses' competency level regarding the care of infants with congenital anomalies of central nervous system. **Design:** A descriptive study was used to conduct this study. Setting: This study was conducted at Neurosurgery Department at Mansoura University Hospital. Subjects: A purposive sample composed of all available nurses (55 nurses), which are working at the previously mentioned setting. Tools for data collection: First tool: Predesigned questionnaire sheet to assess nurses' knowledge about CA of CNS. Second tool: Competency Checklist to assess nurses' practice regarding the care of infants with CA of CNS. Third tool: Modified Likert scale to assess nurses' attitude. **Results:** More than three quarters of the studied sample were females, and about two thirds of them had less than 5 years in experience. In addition, slightly more than half of them had good total knowledge, more than half of them had incompetent total practice and less than two thirds of them had positive attitude. Also, there was statistically significant difference between the studied nurses' total level of practice and their age, educational level and years of experience. **Conclusion:** There was positive correlation between practices of the studied nurses and their total level of knowledge. Also, it was concluded that nurses' knowledge, practices and attitude affected the nurses' competency level, in addition to that, characteristics of the studied were considered as factors affecting their competency. nurses **Recommendations:** Providing health training program at neurosurgery departments about congenital anomalies of central nervous system to raise awareness of the nurses, Developing a simplified and comprehensive protocol including policy and procedure about care of infants with CA of CNS to be distributed on nurses in neurosurgery departments and Further studies should be carried out in other health care facilities to assess nurses' knowledge, practice and attitude regarding congenital anomalies of central nervous system.

Keywords: Congenital Anomalies, Central Nervous System, Nurses Knowledge and Practice.