Evidence-Based Intervention Program for Nurses Caring of High- Risk Neonates at Governmental Hospitals of West Bank-Palestine

Thesis

Submitted for Fulfillment of the Requirements of the Doctorate Degree in Pediatric Nursing

By

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2017

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Acknowledgement

*First of all and above of all, greatest thanks to "**Allah**". The most Merciful whose blessings on me can't be counted.*

*I am deeply grateful to my dissertation committee for their guidance and mentorship through this process. I would like to take this opportunity to express my profound gratitude and deep regard to my major **Professor Dr. Sabah Saad Al-Sharkawy,** Professor of Pediatric Nursing faculty of nursing at Ain Shams University; under her exemplary guidance, valuable feedback and constant encouragement throughout the duration of my study. Her valuable suggestions were of immense help throughout my thesis work. Her perceptive criticism kept me working to make this thesis in a much better way. Working under her supervision was an extremely knowledgeable experience for me. I successfully overcame many difficulties and learned a lot.*

*Foremost, I would like to thank my advisors **Professor Dr. Safy Salah El-Din El- Rafay** Professor of pediatric nursing faculty of nursing at Ain Shams University for her excellent guidance, caring, patience, and providing me with an excellent atmosphere for doing research,. I am very grateful for her patience, motivation, enthusiasm, and immense knowledge in Pediatric nursing that, taken together, make her a great mentor.*

*Undertaking this PhD has been a truly life-changing experience for me and it would not have been possible to do without the support and guidance that I received from **Dr. Bothayna Nader Sadek,** lecturer of pediatric nursing, faculty of nursing at Ain Shams University she has been actively interested in my work and has always been available to advise me; who has provided consistent direction and support, and has been a role model in my pursuit of excellence. I appreciate the time, effort, interest and expertise my committee has given to this endeavor.*

Finally I would like also to vote so many thanks for all who contributed to accomplish this study, including the nursing, high risk neonates & medical teams in Palestinian governmental hospitals.

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List of Abbreviations

AAP/	:	American Academy of Pediatrics
ABE	:	Acute Bilirubin Encephalopathy
APN		Advanced Practice Nurses
ADH	:	Anti Diuretic Hormone
AGA	:	Appropriate-for-Gestational-Age
AGA		Appropriate-for-gestational-age
BPD	:	Broncho Pulmonary Dysplasia
BF		Breast Feeding
CSF		Cerebral Spinal Fluid
CLD	:	Chronic Lung Disease
CPAP	:	Continuous Positive Airway Pressure
DL		Deciliter
EBCP	:	Evidence-Based Clinical Practice
EBP	:	Evidence-Based Practice
EBPP	:	Evidence-Based Practice Program
ELBW	:	Extremely Low-Birth Weight
EEG		Electro Encephalo Graphic
ETT	:	Endotracheal Tube
ELBW		Extremely Low-Birth Weight
FiO2	:	Friction of Oxygen
GI	:	Gastro Intestinal
Gm		Gram
HCAI	:	Health-Care-Associated Infection
HRN	:	High-Risk Neonate
HW	:	Hand Washing
ICN	:	The International Council of Nurses
IDM	:	Infants of Diabetic Mothers
IUGR	:	Intrauterine Growth Restriction
IV	:	Intra Venous
IVGG	:	IntraVenous Gamma-Globulin
IVH	:	Intraventricular Hemorrhages
IWL	:	Insensible Water Loss
GDM	:	Gestational Diabetes Mellitus
KC	:	Kangaro Care
Kg		Kilogram
LBW	:	Low Birth Weight
LGA	:	Large-For-Gestational Age
MAS	:	Meconium Aspiration Syndrome
Mg		Mili gram
MSAF	:	Meconium-Stained Amniotic Fluid
NP		Nasopharyngeal
NEC	:	Necrotizing Enterocolities

N-CPAP	:	Nasal Continuous Positive Airway Pressure
NEC		Necrotizing Entero Colitis
NTE		Neutral Thermal Environment
NI	:	Nosocomial Infection
NIV	:	Non-Invasive Ventilation
NICU	:	Neonatal Intensive Care Unit
PCBS	:	Oropharyngeal
OP		Palestinian Central Bureau of Statistics
PIV	:	Peripheral Intravenous
PS	:	Pulmonary Surfactant
RCT	:	Randomized Controlled Trial
RDS	:	Respiratory Distress syndrome
RNs	:	Registered Nurses
ROP	:	Retinopathy of Prematurity
SFD	:	Small-For-Date Small for Gestational Age
SSC	:	Skin-To-Skin Care
Spo2	:	Oxygen Saturation
TPN	:	Total Parental Nutrition
TSB	:	Total Serum Bilirubin
TTN	:	Transient Tachypnea of the Newborn
VLBW	:	Very Low Birth Weight
WHO	:	World Health Organization

Abstract

Care of high-risk neonates needs experienced and specialized neonatal nurses. Nurses should update themselves with the current research evidence regarding their clinical performance.**Aims:** to assess nurses' knowledge and performance regarding to evidence-based nursing care for high- risk neonates; & design, implement and evaluate the intervention program for caring of high- risk neonates based on evidence-based practice. **Design**: A quazi-experimental design was utilized. **Settings:** The study was conducted at the Neonatal Intensive Care Units in five governmental hospitals in north and middle of West Bank in Palestine. They are Rafidea, Jenin, Tulkarem, Qalqelia, and Ramallah Hospitals. **Subjects**: subjects were composed of a purposive sample of 70 nurses and 70 high-risk neonates. **Tools of data collection**: the tools of the study were a pre-designated questionnaire format (pre/ post) and observational checklists (pre/post). **Results:** is revealed that, there was a marked improvement in studied nurses' knowledge and performance post implementation of evidence-based program with highly statistical significant differences and positive correlation between the studied nurses total knowledge and performance regarding care of high- risk neonate pre & post implementation of the evidence-based program. **Conclusion**: the study concluded that the evidence-based program for care of high-risk neonates had a positive effect on the improvement of nurses' knowledge and their performance. **Recommendations**: the study recommended that, nurses in NICU must have regular teaching sessions within the clinical settings to monitor the nursing performance at the NICU to reinforce and update evidence based nurses' knowledge and perfromance regarding caring high-risk neonates

Keywords: High risk neonate, Evidence Based program, Neonatal Intensive Care Units, neonatal nurse

Introduction

High-Risk Neonate (HRN) is any neonate at risk of sustaining medical, developmental or physiological problems. High-risk neonate who is susceptible to morbidity and mortality because of immaturity, physical disorders or complications during or after birth (***Spear, 2010)***.

The incidence of neonatal deaths rates was 2.8 million occurred globally, most of which could have been prevented with optimal care. Common causes of neonatal mortality and morbidities including intraventricular hemorrhage, retinopathy of prematurity, necrotizing enterocolitis, bronchopulmonary dysplasia, and sepsis during hospitalization in the Neonatal IntensiveCare Units (NICU) (***Ge et al., 2013& Oza et al., 2015***).

Nursing care of high-risk neonates is a critical element in the neonate's chance for survival. It involves a variety of unique functions, skills, and responsibilities that are all essential to assess, understand safety, and support the high–risk neonates. Nursing staff members working in the NICU spend most of their time in caring for high-risk neonates. They are required to keep pace with the rapid changes in health care and provide high quality of care in a cost-effective manner (***El sayed et al., 2013 and Hockenberry &Wilson, 2015)***.

Evidence Based Practice (EBP) is important to the nursing professional development, responsibility, and capabilities of nurses, and it has become an important role in nursing and has integrated into daily practice. In addition, nurses who practice scientific evidence have been able to make better decisions-making in services delivery. Evidence Based Practice is an approach that requires that decisions about health care should be based on the best available, current, valid and relevant evidence (***Stokke et al ., 2014***).

Evidence-based programs that are provided according to the researches have an important role in providing solutions and standardizing methods and they are counted as helpful tools and guides for the nurses of neonatal intensive care units. Also, they help nursing sensitivity and efficiency and high quality of the health resultant to the high extent (***Melnyk et al., 2014).***

Magnitude of the problem

Each year, approximately three million children die in the first 28 days after birth, predominantly due to complications of preterm birth, asphyxia and sepsis. Palestine showed a decline on infant mortality rate constitutes 24\1000 until the year 2000. It was started to rise again mainly during the period from 2002-2006.

According to the statistical report of World Health Organization (WHO) showed that, the neonatal mortality in

Palestine constitutes two thirds 67% of infants deaths death (***Palestinian Central Bureau of Statistics*** "***PCBS", 2014***).

Evidence Based Practice Programs (EBPPs) summarize and evaluate the evidence available on a particular condition with the aim of assisting nurses to make the best management decisions for high- risk neonates. Staff nurses working with high risk neonates also influence and advise on treatment decisions, and they need to make decisions regarding infant condition & treatment options. Nurses have been instrumental in ensuring that hospital services and care pathways are based on evidence based practice programs. However; the most effective care based on currently available evidence is best ensured through the implementation of standardized programs for the care of the high-risk neonates within NICU (***Deaton, 2012***).