



بسم الله الرحمن الرحيم

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Assessment of Nurses' Performance in Care of Children with Critical Cardiac Conditions

Thesis

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

By

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**Faculty of Nursing
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2022**



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List of Abbreviations

<i>Abbr.</i>	<i>Full-term</i>
ABGs	Arterial Blood Gases
ASD	Atrial Septal Defect
AV	Arterio Ventricular Canal
CA	Cardiac Arrest
CHD	Congenital Heart Disease
CO₂	Carbon Dioxide
CP	Cardiopulmonary
CPR	Cardiopulmonary Resuscitation
DA	Ductus Arteriosus
DV	Ductus Venosus
ECG	Electrocardiography
Echo	Echo Cardiography
HF	Heart Failure
IM	Intramuscular
IV	Intravenous
IVC	Inferior Vena Cava
Kg	Kilograms
LA	Left Atrium
LV	Left Ventricle
Mg/DL	Milligrams per Deciliter
ml	Milliliter
MRI	Magnetic Resonance Imaging
NSAIDs	Non-Steroidal Anti-Inflammatory Drugs
O₂	Oxygen

List of Abbreviations

<i>Abbr.</i>	<i>Full-term</i>
PA	Pulmonary Artery
PCO₂	Partial Pressure of Carbon Dioxide
PDA	Patent Duct Arteriosus
PH	Pulmonary Hypertension
PO₂	Partial Pressure of Oxygen
PS	Pulmonary Stenosis
PV	Pulmonary Valve
PVR	Pulmonary Vascular Resistance
RA	Right Atrium
RV	Right Ventricle
SA	Sino Atrial Node
SVC	Superior Vena Cava
SVR	Systemic Vascular Resistance
SVT	Supraventricular Tachycardia
TGA	Transposition of the Great Arteries
TGV	Transposition of the Great Vessels
TOF	Teratology of Fallot
TV	Tricuspid Valve
VF	Ventricular Fibrillation
VSD	Ventricular Septal Defect
VT	Ventricular Tachycardia

Abstract

Background: Pediatric cardiac critical care nursing plays a central role in the care of pediatric patients with complex congenital, acquired and critical heart condition. **Aim:** This study aimed to assess nurses' performance in care of children with critical cardiac conditions. **Research design:** A descriptive research design. **Settings:** This study was conducted at the Pediatric Intensive Care Unit at Cardiothoracic and Vascular Academy affiliated to Ain Shams University Hospitals and Bahteem hospital for specialist surgeries affiliated to Health Insurance. **Subject:** A convenience sample of 59 nurses who were working at the previously mentioned study settings. **Tools:** A pre-designed interview questionnaire sheet, observational checklists and attitude Likert type rating scale to assess nurses' performance in the care of children with critical cardiac conditions. **Results:** More than one quarter of the studied nurses had satisfactory knowledge, less than two fifths of them had satisfactory practice and more than one third of them had a negative attitude regarding the care of pediatric patients with critical cardiac conditions. **Conclusion:** More than half of the studied nurses had an adequate performance regarding the care of the children with critical cardiac conditions. **Recommendations:** Periodic assessment of nurses' performance in the care of children with critical cardiac conditions and provide appropriate nursing intervention based on their actual educational needs assessment.

Key words: *Critical Cardiac Conditions, Nurses Performance.*

Introduction

Heart diseases in pediatric patients are life threatening events; that affects the child's health and family. Heart diseases are acquired or congenital. Congenital heart defects (CHDs) are structural problems with the heart present at birth and result when a problem occurs during heart development soon after conception; usually occurs during the first 8 to 12 weeks of gestation (*James et al., 2014*).

Most alterations in cardiovascular function in children are the result of defects in the heart that are present at birth as CHD. Defects range in severity from simple problems, such as different types of septal defects between chambers of the heart, to very severe malformations, such as complete absence of one or more chambers or valves (*Leifer, 2018*).

According to *Lozano (2012)*, congenital heart diseases are the most common neonates congenital disorder. A congenital heart defect is a defect in the structure of the heart and great vessels which is present at birth. Many types of heart defects exist, most of which either obstruct blood flow in the heart or vessels near it or cause blood to flow through the heart in an abnormal pattern.

The estimated prevalence was 4 to 50 per 1000 live births more than 2 million Americans living with a CHD. Approximately 8 out of every 1,000 newborns have CHDs,