Nurse's Performance Regarding the Care of Patients with Arrhythmia

Thesis

Submitted for Fulfillment of the Requirements of Master Degree in (Critical Care Nursing)

By

Marwa Mohamed Hassan Youssef

B.sc in Nursing

Faculty of Nursing

Ain Shams University

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Under Supervisions of

Prof. Dr. Magda Abd El Aziz

Professor of Medical Surgical

Faculty of Nursing – Ain Shams University

Prof. Dr. Hanan Shehata Mohamed

Professor of Medical Surgical

Faculty of Nursing – Ain Shams University

Dr. Yosreah Mohamed Mohamed

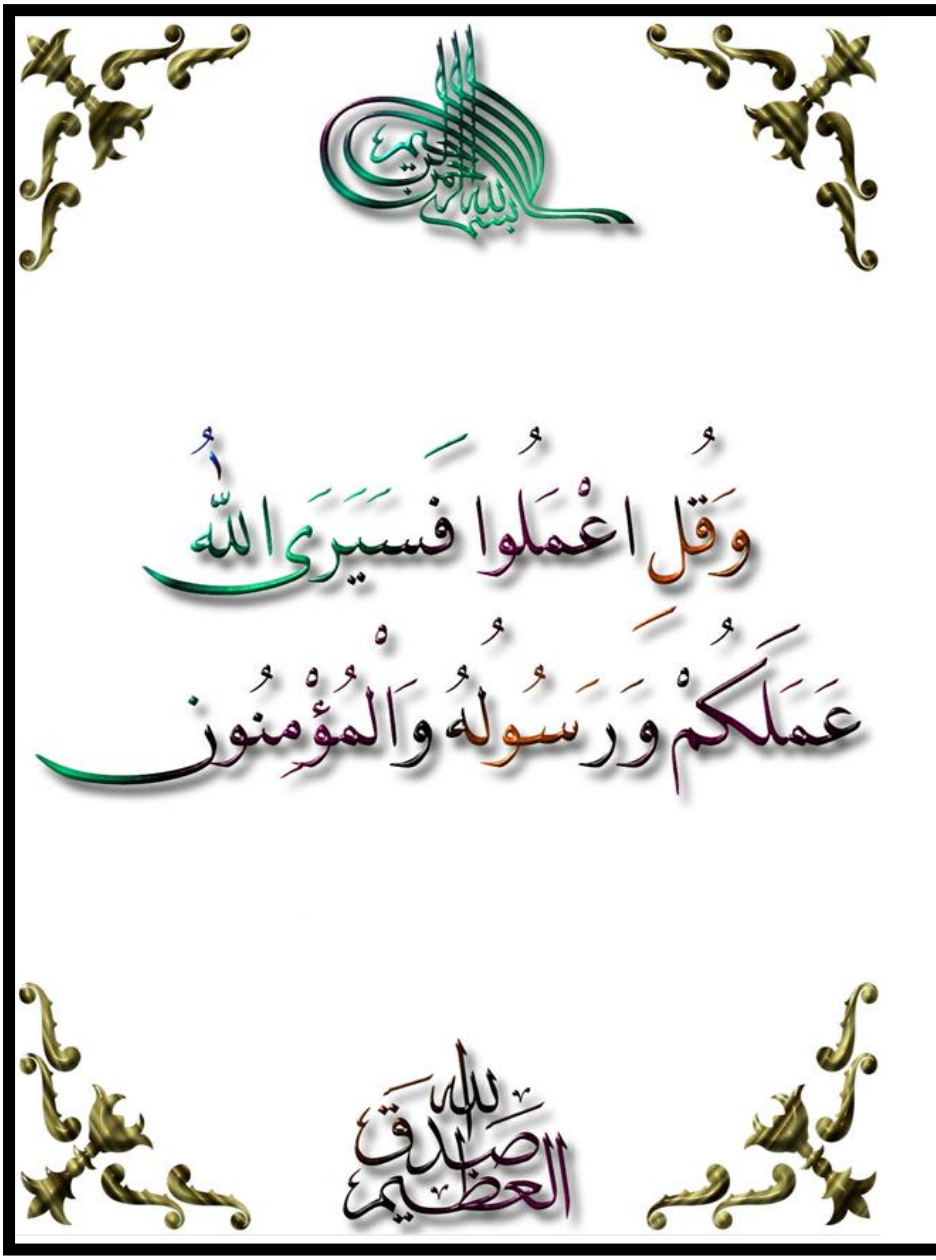
Assistant Professor of Medical Surgical

Faculty of Nursing – Ain Shams University

Faculty of Nursing

Ain Shams University

2017


بسم الله الرحمن الرحيم
وَقُلِ اعْمَلُوا فَسَيَرَى اللَّهُ
عَمَلَكُمْ وَرَسُولُهُ وَالْمُؤْمِنُونَ
صدق الله العظيم

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Researcher
Marwa Mohamed

List of Contents

List of Abbreviations

Abb	Full term
AV block	Atrio ventricular block
AV node	Atrioventricular node
AV valve	Atrioventricular valve
AVR	Accelerated ventricular rhythm
CPR	Cardiopulmonary resuscitation
CCU	Coronary care unit
ICU	Intensive care unit
ECG	Electrocardiogram
EPS	Electrophysiology study
J	Joule
RBBB	Right bundle branch block
LBBB	Left bundle branch block
LOC	level of consciousness
MI	Myocardial infarctions
PAC	Premature atrial contraction
PEA	Pulsesless electrical activity
PVC	Premature ventricular contraction
S3	Third sound heart
S4	Fourth sound heart
SA node	Sino atrial node
SCA	Sudden cardiac arrest
SND	Sinus node dysfunction
SVC	Superior vena cave
SVT	Supraventricular tachycardia
VAR	Ventricular asystole rhythm
VT	Ventricular tachycardia
CBS	Coronary bypass surgery
WHO	World health organization

List of Tables

List of Figures

List of Appendix

Abstract

A cardiac arrhythmia simply defined as variation from the normal heart rate. Recent years have witnessed important advances in our understanding of the electrophysiological mechanisms underlying the development of a variety of cardiac arrhythmias. **Aim:** Assess the nurse's performance regarding the care of patients with arrhythmia through the following: Assessment of the nurse's knowledge regarding the care of patient with cardiac arrhythmia, Assessment the nurse's practices regarding the care of patient with cardiac arrhythmia and assessment of the nurse's attitude regarding the care of patient with cardiac arrhythmia. **Design:** A descriptive exploratory study was utilized to meet the aim of this study. **Setting**: The study was conducted in the coronary care unit CCU at Ain Shams Specialized Hospital, and intensive care unit ICU and coronary care unit CCU at National Heart Institute. **Subject**: A convenience sample of 91 nurses who are working at two hospitals, Ain shams Specialized Hospital 31 nurses and National Heart Institute 60 nurses who were caring for patients with arrhythmia in the previously mentioned study settings, were included in this study . **Tools of the study**: Self-administered questionnaire sheet to assess nurse's knowledge, an observation checklist to assess nurse's practice and nurse's attitude scale to assess nurse's attitude. **Results:** Only 19.78% of them had satisfactory total level of knowledge, 36.30 % of them had satisfactory total level of practice, 37 % of the studied nurses had positive total attitude and 63% of them had negative total attitude toward caring of patient with arrhythmia. **Conclusion:** The minority of studied nurses had satisfactory level of knowledge, most of nurses had unsatisfactory level of practice and two fifth of the studied nurses had positive attitude and two thirds of them had negative attitude toward caring of patient with arrhythmia. **Recommendations:** Updating knowledge and practice of ICU nurses through conduction of periodic educational programs regarding care of patient with arrhythmia, guideline should be available in ICU as a reference for all nurses, suggestions for future research and practice are proposed.

Key words: Knowledge, Practice, Attitude, Arrhythmia, ICU nurses, Intensive care unit (ICU)**,** Cardiac care unit

Introduction

Dysrhythmia is variation in the regular beat of the heart. Some of these changes are normal, like palpitations while others are more serious. People's hearts naturally speed up with emotion or exercise and slow down during sleep. Other dysrhythmias are associated with heart disease and can be life threatening. Palpitation is the sensation of a rapid or irregular heartbeat. Normally, the heartbeat begins in the right atrium when the sinoatrial (SA) node, a special group of cells-transmits an electrical signal across the heart. This signal spreads throughout the atria to the atrioventricular (AV) node. The AV node connects to a group of fibers; the sinoatrial node is the heart's pacemaker ***(Tapson, 2014).***

Cardiac arrhythmias are important health problems which causes' sudden death. The principal cause of sudden death is the occurrence of malignant arrhythmias, which result in the loss of contraction of the heart with subsequent lack of blood supply to vital organs like the brain. If the arrhythmia persists for more than 5 minutes, the patient dies. The only way to avoid the fatal outcome is to restore the normal cardiac rhythm by means of an electrical cardioversion or in some cases by using a pacemaker. A

dysrhythmia occurs when the heart's natural pacemaker (the SA node) becomes defective; the normal conduction pathway to the AV node and the ventricles is interrupted; another part of the heart takes over as pacemaker ***(Sligi, 2014).***

On assessing the patient for dysrhythmias, the nurses look for several different indicators like, signs and symptoms that the patients may express including palpitations, nausea, vomiting, pallor, diaphoresis, weakness, fatigue, numbness of arms, dyspnea, restlessness, dizziness, syncope, anxiety, decreased level of consciousness, irregular heart rate, common location of pain linked with dysrhythmias include the chest, shoulder, back and arm ***(Goth et al., 2014).***

A sudden change in the vital signs can be the first indication of an arrhythmia. The nurse should palpate the radial pulse and feel the regularity of heart beat. If the apical and radial pulses are not equivalent. A nurse should count the apical pulse while the second nurse counts the radial pulse through the palpitations ***(Lewis, 2014).***

According to the world health organization dysrhythmias are the most common complications that lead to death worldwide. It was exacts a significant mortality

with approximately 70, 000 to 90, 000 sudden cardiac deaths related to dysthymias especially ventricular tachycardia and ventricular fibrillation ***(World Health Organization, 2014).***

It is very important for the nurses, to recognize normal and abnormal cardiac rhythms, called ((Dysrhythmias)). It is essential nursing skill to understand nursing intervention, early recognition of the problem and understand what arrhythmias are and how to manage patients with cardiac arrhythmias ***(Huff, 2014).***

It is now widely recognized that the skills and experiences that nurses get from arrhythmias services are take extremely valuable. The role of specialist nurses is to make professionally autonomous decisions. The nurses are accountable to receive patients with undifferentiated and undiagnosed problems and provide education and support to other health care professional. Nurses provide care in hospitals to ensure patients receive good care for their cardiac arrhythmias ***(Kellen, 2014).***

Nurses need a deep understanding of nursing care priorities for patients with dysrhythmias. Nurses are responsible for a complex performance implies specific set of knowledge and practice needed for providing specific nursing implementation ***(Dennison et al., 2014).***

Significance of the study:-

In Egypt, approximately 4 million people have arrhythmias. On the duration of 2015-2016, the number of patients admitted to CCU were 2500 patients, about 50-60% having arrhythmias ***(Ain Shams University Hospital Statistical Office, 2016)***.

Arrhythmias can be very dangerous and contribute to approximately 500, 000 deaths in the Egypt each year. The researcher noticed that cardiac arrhythmias are common problem encountered in CCU and represented a major source of morbidity; there are a dangerous arrhythmias lead to sudden death and heart failure (***Lewis, 2014).***

Therefore, 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 to improve patient's outcomes. A high quality performance of the nurses at critical care units would be important to reduce the complications and save much of the direct and indirect costs. So, the current study was carried out to assess the nurses' knowledge and practice to identify their actual performance for patients with dysrhythmia at critical care units ***(Prentice & Goncerz, 2014).***