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*Assessment of Nurses' Knowledge toward Atrial
Fibrillation Disorder in Cardiac Care Units at Teaching
Hospitals in Babylon Governorate*

A thesis submitted by

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To

The Council of College of Nursing, University of Babylon

In

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Nursing Sciences

Supervised by

Assist. Prof. Dr. Hussam Abbas Dawood

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Moharim ,1444 A.H

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿وَلَقَدْ آتَيْنَا دَاوُودَ وَسُلَيْمَانَ عِلْمًا ۖ وَقَالَا الْحَمْدُ لِلَّهِ

الَّذِي فَضَّلَنَا عَلَىٰ كَثِيرٍ مِّنْ عِبَادِهِ الْمُؤْمِنِينَ﴾

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Dedication

To

The one who honored me by bearing his namemy dear father

The source of my inspiration and thoughtsmy dear mother.

*Those who supported me with their endless love, support and
encouragement*

... brothers and sisters.

The person who shared my life's journey with me.....my dear husband.

My happiness and the flower of my life..... my lovely children ,Ali &

Sumana .

My dear friends with respect .

Shahad

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Abstract

Atrial fibrillation is an irregular heartbeat, often very fast, that can lead to blood clots and increase the risk of stroke, heart failure and other heart-related complications. Nurses' knowledge of patient management is critical in cardiac care wards.

The purpose of this study to assess nurses' knowledge of atrial fibrillation and to identify differences in knowledge with respect to socio-demographic variables.

A descriptive study was conducted with a convenience sample of 200 nurses was selected by using non-probability sampling approach. The questionnaire was reliable by a pilot study and then presented to experts to prove its reliability. The total number of items included in the questionnaire was 40 items to assess nurses knowledge about atrial fibrillation. The data were collected by using the self-report method and analyzed by applying the descriptive and inferential statistical approach.

The results of the study indicated that (55%) of the nurses showed a poor level of knowledge related to atrial fibrillation. There were statistically significant differences in the nurses' knowledge and gender ($p = 0.000$), educational level ($p = 0.000$), years of experience ($p = 0.000$) and number of training courses ($p = 0.028$).

Nurses who have more than 5 years of experience and who are trained are qualified to work in cardiac care units. More years of experience and training of nurses by carrying out periodic educational sessions that really help in developing their knowledge. It should be an educational program for nurses that contributes to improving their level of knowledge about atrial fibrillation and encouraged by testing periodically to retrieve their knowledge

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List of Abbreviations

Item	Meaning
AF	Atrial Fibrillation
D .f	Degree of freedom
F	Frequency
K	Number of items
M.S	Mean of score
No.	Number
NS	Non- significant
P.	Page
p.p.	Pages
PSS	Post Psychosocial Support
P-value	Probability value
S	Significant
S.D	Standard Deviation
SPSS-XX	Statistical Package of Social Sciences 20
WHO	World Health Organization
CCU	Cardiac care units
OAC	Oral anticoagulant

NCSs	Nursing Care Standards
AMI	Acute Myocardial Infarction
SA Node	Sino Atrial Node
BMI	Body Mass Index
ARIC	Atherosclerosis in Communities
OSA	Obstructive Sleep Apnea
BG	Blood Glucose
UK	United Kingdom
CBC	Complete Blood Count
INR	International Normalized Ratio
PT	Prothrombin Time
PPG	Photoplethysmography
LED	Light Emitting Diode
DOACs	Direct Oral Anticoagulants
AADs	Antiarrhythmic Drugs
ECV	Electrical Cardio-version
PCV	Pharmacological Cardio-version
AFL	Atrial Flutter

Symbol table

$\%$	Percentage
E_i	Expected frequency
O_i	Observed frequency
σ_{ii}	Variance (not standard deviation) of item i
σ_{ij}	Estimated covariance between items i and j
Σ	Sum

Chapter One

Introduction

Chapter One

Introduction

1.1. Background

Cardiovascular disorders are the primary cause of death from non-communicable disorders, with 17,5 million fatalities (46% of fatalities from non-communicable diseases). Ischemic heart disease; 7.4 million deaths are the most common cardiovascular diseases, while 6.7 million are due to strokes (WHO, 2014).

Atrial fibrillation (AF) affects 1% to 2% of the general population, with 8% of persons over the age of 80 suffering from it. According to recent studies, atrial fibrillation is responsible for 0.5 % of all cardiac care unit visits, putting a considerable strain on acute care resources. A third of patients with atrial fibrillation are present to cardiac care units because they are experiencing symptoms. (Carter et al. 2016).

According to studies, the prevalence of atrial fibrillation among Chinese adults (aged 35 and up) is modest, ranging between 0.6 and 2.3 percent. These estimates are unlikely to be trustworthy when there is continuing rapid advancement, lifestyle changes, and urbanization, with concomitant rises in obesity and diabetes, in a large population in China, because they are generated from limited populations with changing sample sizes (Du et al., 2021).

Atrial fibrillation (AF) is a common irregular heartbeat that has been linked to an increased risk of morbidity and mortality. Atrial fibrillation, in particular, is linked to consequences like stroke, systemic thromboembolism, and heart failure, all of which lead to further hospitalization. As a result, atrial fibrillation has a considerable impact on health-care systems, which is expected to grow as the population grows older (Berti, 2013).

The clinical characteristics and comorbidities of distinct forms of atrial fibrillation (paroxysmal, chronic, or permanent) can alter management strategy and long-term prognosis. Patients with persistent atrial fibrillation have different cardiovascular risk profiles than those who have paroxysmal or chronic atrial fibrillation (Chiang et al., 2012).

During the first outpatient visit, reasonable cardiac diagnostic tests and therapies are installed. During the initial visit, all test findings are thoroughly discussed, therapies are adjusted as needed, and the supervising cardiologist confirms everything on the spot. The nurse providing emotional support as well as personal knowledge about the etiology, symptoms, and complications of atrial fibrillation to help individuals commit. Routine outpatient management by a cardiologist without a clear clinical pathway is standard care (Wijtvliet et al., 2019).

Nurses working in cardiac care units play an important role in detecting and treating atrial fibrillation. Nurses now gather data and tell physicians, who then make treatment decisions based on the nurse's interpretation of rhythm, or provide pharmacotherapy and counter-shock therapies in accordance with the unit's own protocols or algorithms (Ruhwanya et al., 2018).

1.2.Importance of the Study

The number of people suffering from AF is rising over the world. According to a 1999 study in Zealand, the prevalence of AF hospitalizations was 10.4%. With age, the prevalence of AF rises (Alkubaisi et al., 2020).

At the Azadi Teaching Hospital in Duhok, Kurdistan Region, Iraq, 132 patients with atrial fibrillation (AF) were sequentially reviewed for OAC taking during the 2018–2019 year. Patients who were either male or female,

were least 18 years old, and had a main or secondary AF diagnosis (Mohammad et al.,2021)

Adults aged 55 and more with AF made up 1.8 % of the entire population in 2010, and this percentage is expected to climb to 3.5 % by 2060. The number of adults over 75 years old with AF is expected to rise from 5.6 million in 2010 to 13.8 million in 2060. If demographic estimates assume no net foreign migration, the total number of AF patients in the European Union will climb to 16.9 million in 2060 (Krijthe et al., 2013).

Arrhythmias affect around four million Egyptians. Between 2011 and 2012, 2315 patients were hospitalized to the coronary care unit (CCU), with 50–60% of them having arrhythmias. The researcher found after 5 years of clinical experience and observations in the cardiac care unit that cardiac arrhythmias are a widespread concern in the CCU and are a substantial source of morbidity, with some of them leading to sudden death and heart failure (Benha University Hospital Statistical Office, 2012).

In another study, 75 % of consecutive AF patients hospitalized with heart failure were those who had developed AF before to or concurrently with heart failure. According to demographic studies, between 59 and 76 % of AF and heart failure patients develop AF before or at the same time as heart failure (Smit et al., 2012) .

In Iceland, the average annual increase in AF prevalence in the global population is 0.04 % (data from 1998 to 2008), with 0.12 percent and 0.07 % increases in men and women aged 65–74 years, 0.27 % and 0.23 % in those aged 75–84 years, and 2.8 % and 0.27 % in those aged over 84 years, respectively (Zoni, 2014).

Atrial fibrillation is a dangerous disorder that can cause greater force on the heart. It requires immediate and precise care, which necessitates the

use of well-trained nursing professionals to cope with emergency situations. (Eltoom, 2017).

Nurses must have a higher degree of knowledge and skill in recognizing and treating atrial fibrillation since they care for their patients around the clock. As a result, familiarity with recommendations to encourage high-quality, appropriate patient care should be a part of their job description. The goal is for nurses to be able to quickly recognize and treat AF in order to reduce the number of deaths caused by life-threatening arrhythmias (Fadalla, 2018).

1.3.Statement of Study

The present study is concerned with determining nurses in cardiac care units understand atrial fibrillation disorder . In addition to following up their strengths and weaknesses in consolidating their knowledge and seriousness in finding appropriate solutions to the largest number of problems that deal with the phenomenon under study (assessment of nurses' knowledge of atrial fibrillation disorder in cardiac care units at teaching hospitals in Babylon governorate), The following questions are developed to achieve the basic objectives:

1. What is the level of knowledge of nurses working in cardiac care units at teaching hospitals related to atrial fibrillation disorder.
2. Do the demographical factors have any influences on the nurses' knowledge for atrial fibrillation disorder.

1.4. Research Problem

Cardiac arrhythmias are a common problem in the Cardiac care units and are a major source of morbidity, with some leading to sudden death and heart failure. As a result, this study is conduct to improve the knowledge and practice of nurses caring for patients with cardiac arrhythmias by

implementing Nursing Care Standards (NCSs) to help them promote the quality of nursing care and decrease morbidity and mortality in such patients (Ibrahim, 2017). Nurses play a crucial role in the care of AF, offering both informal and formal patient counseling about treatments for the condition. However, there is need for greater nurse involvement and engagement in supporting patients with shared decision-making around anticoagulation for stroke prevention .(McCabe , 2011).

1.5.Objectives of Study

1. To assess nurses' knowledge toward atrial fibrillation disorder in cardiac care units.
2. To find out the association between the nurses' knowledge and their variables of the nurses such as (age ,gender, education status, years of experience in nursing, and years of experience in cardiac care units) .

1.6.Definition of Terms

1.6.1.Assessment:

Theoretical Definition:

Assessment is the first step in the nursing process and refers to gathering information about patients' circumstances to aid nurses in giving the right care to patients. (Hassan, 2020).

Operational Definition:

In this study, assessment refers to the process of pointing out the level of nurses' knowledge of atrial fibrillation disorder in cardiac care units in teaching hospitals.

1.6.2.Nurse

Theoretical Definition:

Nurse is a person who has competency works to promote and maintain health of ill or well individual and provide nursing care for patients (Aziz, 2020)

Operational Definition:

A nurse in this study is someone who has been trained to care for patients with atrial fibrillation in cardiac care units.

1.6.3.Knowledge

Theoretical Definition:

The ability to learn, remember, and apply information through a combination of skill, experience, and discernment (Perkins, 2013).

Operational Definition:

knowledge refers to nurses' theoretical grasp of atrial fibrillation based on ECG strips, kinds, and the management required to correct them.

1.6.4.Atrial Fibrillation

Theoretical Definition:

Atrial fibrillation (AF) is a complicated, age-related arrhythmia that has spread worldwide and has a significant socioeconomic impact. (Petrėnas & Marozas, 2018).

Operational Definition:

Atrial fibrillation is abnormal or irregular heartbeats that can lead to sudden death.

1.6.5. Cardiac Care Unit

Theoretical Definition:

Wilburne and Julian proposed the original concept of a CCU in 1961 as a treatment program aimed at a specific group of patients with acute myocardial infarction (AMI), with the goal of recognizing and treating life-threatening arrhythmias (Bourke, 2016).

Operational Definition:

Patients with atrial fibrillation receive specialist treatment in hospital cardiac care units, including continuous monitoring and increasing life support.

Chapter Two

Literature Review

Chapter Two

Literature Review

This chapter will present literature and research that are relevant to the current investigation. It consists of the following sections:

2.1. Atrial Fibrillation: A Historical Overview

In clinical practice, atrial fibrillation is the most common and long-lasting heart arrhythmia. It's a type of supraventricular tachyarrhythmia marked by uncoordinated atrial activity and poor atrial mechanical function. In electrocardiogram P waves are absent and replaced by rapid fibrillatory waves that vary in size, shape, and timing, resulting in an erratic ventricular response (Lane et al., 2011).

Atrial fibrillation has been known as the most prevalent cardiac arrhythmia in the general population since the early twentieth century. Garrey first documented the electrical conduction anomalies linked with AF in 1924, which include the same electrical patterns that are investigated today. The processes behind these AF events were more clearly identified in the years that followed. The work of Moe and colleagues in 1964, who produced the first computer-based mathematical model of AF using the multiple-wavelet idea of AF, which worked as a key tool for assessing electrical flaws in atrial fibrillation, greatly enhanced AF electrical modeling approaches (Pellman & Sheikh, 2015).

An examination of 2011 data from the Centers for Medicare and Medicaid Services shows the prevalence of several chronic comorbidities in two groups of atrial fibrillation patients: those under the age of 65 and those 65 and older. More than 80% of both groups had hypertension, with more than 50% having ischemic heart disease, hyperlipidemia, or heart

failure. Anemia, arthritis, diabetes, and chronic kidney disease were all prevalent comorbidities. (It's also worth mentioning that the two groups have different amounts of beneficiaries: the younger group has 105,878 beneficiaries, while the older group has 2,426,865) (January et al., 2014).

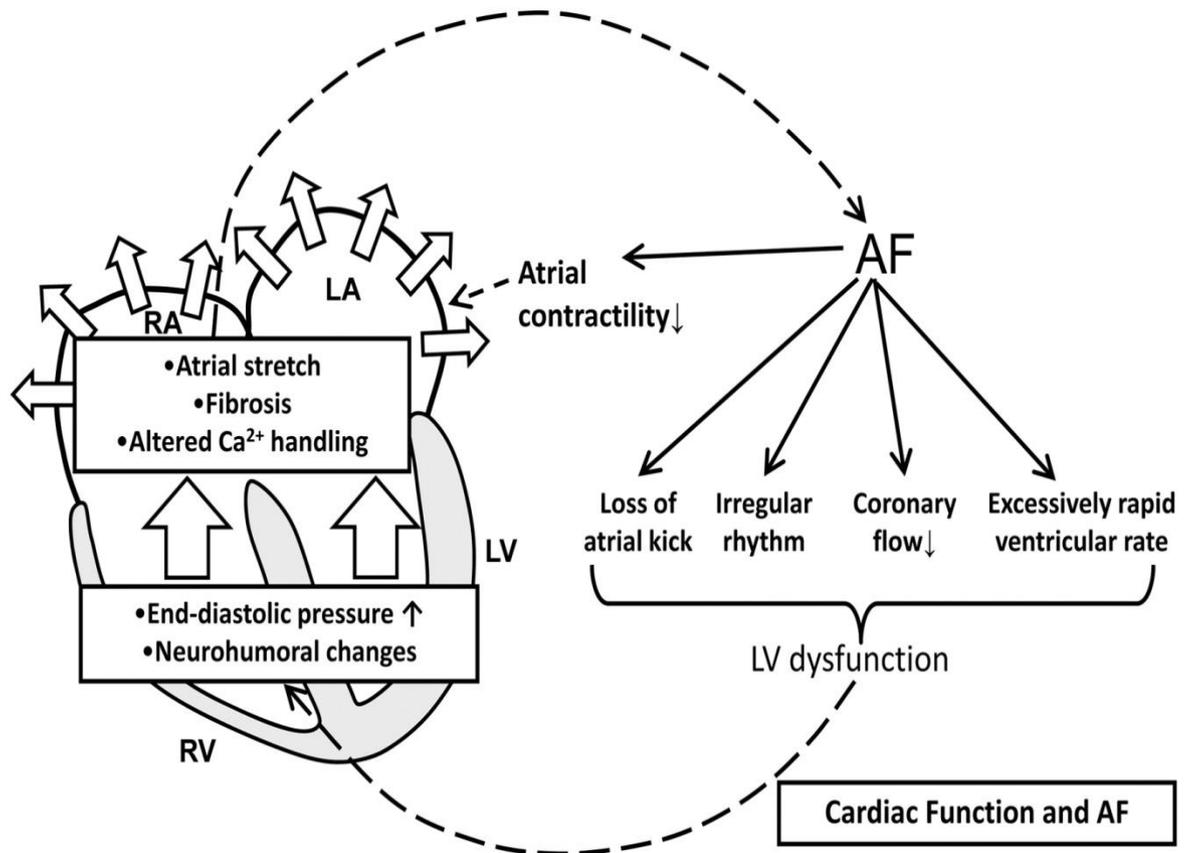
2.2. Pathophysiology of Atrial Fibrillation

Atrial fibrillation (AF') pathogenesis is complicate and poorly understand. For the maintenance of arrhythmia, two separate mechanisms are thought to be required: the existence of triggers and a changed substrate. Winterberg hypothesized the importance of ectopic beats in causing AF in 1907, while Scherf and Printzmetal shown that AF can be generated by rapid-firing focal triggers in the late 1940s (Margulescu, et al 2017).

Repeat episodes of AF cause structural and electrophysiological remodeling of the substrate, as well as changes in cell-to-cell conduction, resulting in a lower threshold for AF triggers and conditions that sustain AF. As a result, other risk factors contribute to the evolution of atrial fibrillation; hence, "AF begets AF," explaining how paroxysmal episodes grow into persistent sustained episodes over time. The longer wait for treatment, the more difficult it is to go back into sinus rhythm (Zathar et al., 2019).

At rest, atrial contraction contributes around 20% of left ventricular stroke volume; however, with AF, this contribution is lost. Furthermore, AF can result in left ventricular dysfunction due to abnormally rapid and/or irregular ventricular beats (Figure 2.1). Coronary flow reserve may also be compromised. As a result, AF may contribute to ventricular de compensation, and inhibiting AF in congestive heart failure patients may improve their outcomes. Although retrospective observations in AF

ablation patients are encouraging, pharmacological therapy randomized trials have been unsuccessful (Iwasaki et al., 2011).



Figure(2-1):Dynamic interactions between atrial and ventricular function during atrial fibrillation (AF). LV indicates left ventricular. (Iwasaki et al., 2011).

The growth of thrombi on the atrial walls and within the left atrial appendage is one of the most serious consequences of AF. When blood pools due to poor atria emptying, thrombi develop and enter the circulatory system, producing strokes and other systemic thromboemboli (Galvin, 2018).

2.3.Types Atrial Fibrillation

2.3.1.Paroxysmal Atrial Fibrillation

Within 7 days of commencement, AF concludes spontaneously or with intervention. 'Self-terminating, in most cases within 48 hours.' Episodes may reoccur with varying regularity. Some AF paroxysms might last up to seven days. Paroxysmal AF episodes are those that are cardioverted within 7 days (Hammond-Haley, et al 2018).

Within paroxysmal AF, there is a lot of clinical variation, with some patients having very few short-lived episodes and others having extended durations of AF and short periods of sinus rhythm. The total amount of time spent in AF, known as 'AF density,' is different (Charitos et al., 2012).

2.3.2.Persistent Atrial Fibrillation

Persistent AF is define as AF that lasts longer than 7 days (January et al 2014). Recurrent AF is consider chronic when it lasts longer than 7 days. The categorization is not change by pharmaceutical therapy or direct current cardioversion (Dinh et al., 2014).

2.3.3.Long-Standing Persistent Atrial Fibrillation

One of most tough issues is long-term persistent atrial fibrillation. Medical therapy for sinus rhythm maintenance does not appear to be a better alternative for this population. They should definitely consider this a more advance illness. It's more commonly link to structural heart disease, and it's most likely a more damage substrate. For an oncologist, this is comparable to metastatic cancer. It's more difficult to cure, with lower success rates, and it's far more difficult than a more confined, benign disease. When compare to the tremendous success of accessory pathway ablation, low success rates are perceived as failure by electrophysiologists;

yet, the oncologist views even small success as a victory and a foundation for future success (Burkhardt et al., 2012).

2.3.4. Permanent Atrial Fibrillation

Permanent AF is the end outcome of a degenerative condition called atrial myopathy, which causes a severe disruption of atrial structure and function. When compared to patients with non-permanent AF, patients with permanent AF have a different clinical profile (Boriani, et al. 2021).

2.4. Etiologist Atrial Fibrillation

Cardiac causes includes :Hypertension, Heart failure ,Coronary artery disease with prior myocardial infarction ,Left ventricular dysfunction systolic and diastolic Including hypertrophic and restrictive cardiomyopathies , Valvular heart disease, Congenital heart disease (early repair of atrial septal defect) Pericardial disease. Postsurgical (particularly cardiac surgery),Sick sinus syndrome.AF as a result of ventricular pacing Supraventricular tachycardia (including Wolff-Parkinson-White syndrome, atrial tachycardia, atrial flutter, or other). Genetic/familial. And Non cardiac causes includes :Obstructive sleep apnea, Obesity, Excessive alcohol ingestion, Hyperthyroidism, Vagally mediated (ie, habitual aerobic training) ,Pulmonary disease (pneumonia, chronic obstructive pulmonary disease, pulmonary embolism, pulmonary hypertension) (Healey, et al. 2011).

2.5. Signs and Symptoms Atrial Fibrillation

People with AF sometimes have no symptoms and their illness is only discovered during a medical examination. Others may encounter one or more of the symptoms listed below. (Palpitations, Dyspnea ,Chest discomfort, Depression or anxiety ,Chest Discomfort, Pressure ,Dizziness,

Pre-syncope, Syncope, A decrease in exercise tolerance (Dadkhah, & Sharain, 2016).

2.6.Risk Factors Atrial Fibrillation (Modifiable and Non-modifiable)

2.6.1.Hypertension

One of the biggest risk factors for AF is hypertension. The prevalence of hypertension is observed to range from 49 to 90 % in AF investigations. Not only was stage II-IV hypertension (systolic blood pressure (BP) >160 mmHg and diastolic blood pressure (BP) >95 mmHg) strongly linked with the risk of AF in the Framingham Heart Study, with an odds ratio (OR) of 1.5 for men and 1.4 for women (Manolis et al., 2012).

2.6.2.Heart Failure and Coronary Artery Disease

According to data from the Framingham Heart Study, HF accounts for a small proportion of the population-attributable risk of incident AF and it is reduced in recent decades. Improvements in HF therapy could account for these decreases (Schnabel et al., 2015).

2.6.3. Obesity

Obesity has been shown to be an independent risk factor for incident AF in recent years. Overweight and obesity (BMI ≥ 25 kg/m²) accounted for roughly 18 % of incident AF in the ARIC trial, making obesity the second most important risk factor for AF (Perez et al., 2013).

2.6.4.Obstructive Sleep Apnea

Obstructive sleep apnea (OSA) is a substantial AF risk factor that has only recently been identified. OSA individuals are four times more

likely than non-OSA people to develop atrial fibrillation (Andrade et al. 2014).

2.6.5. Diabetes

Diabetes and high blood glucose (BG) levels have also been shown to be important risk factors for incident AF in various investigations.. Diabetes and poor glycemic control, as measure by raise HbA1c levels, were found to be independently related with an increased risk of incident AF in the ARIC research (Huxley et al., 2012)

2.6.6. Smoking

Several studies have look into the link between smoking and the onset of AF. Some of them discover a risk increase ranging from 32% to more than doubling in current smokers and 32% to 49% in former smokers (Pfister et al., 2015).

2.6.7. Genetic Risk Factors and Atrial Fibrillation

AF has been considered to be heritable since the mid-twentieth century, with proof supplied in a research that showed familial auricular fibrillation in three brothers (Andrade et al., 2014).

2.6.8. Other Risk Factors

Chronic kidney disease, alcoholism, and thyroid dysfunction are all recognize as risk factors for AF, but their relative importance is still contest (Anumonwo et al., 2016).

2.7. Diagnostic Tests for Atrial Fibrillation

2.7.1. Chest Radiography

For the diagnosis of many thoracic illnesses, chest radiography continues to be the gold standard. The constraints and restrictions of the

technology have been the main drivers of recent advancements in chest radiography. For the capture of chest images, conventional film-based systems have been superseded or are quickly being replaced by computed radiography and now full-field flat-panel detector systems (McAdams, et al .2006).

2.7.2.Labratary Tests

A person with atrial fibrillation cannot be diagnosed by a blood test. Blood tests may be performed, however, to rule out heart damage caused by a heart attack and to check for specific underlying causes of atrial fibrillation. Blood tests may be required for those who are currently taking medication for atrial fibrillation to ensure that they have enough of the drug (typically digoxin) in their system to operate effectively. Blood testing to rule out other conditions include the following: complete blood count (CBC),Heart damage or stress markers (enzymes such as troponins and creatine kinase [CK] and BNP),Drug level of digoxin (in patients taking this medication), International normalized ratio (INR) and prothrombin time (PT) (INR) (These tests reveal how effectively warfarin is working to prevent blood clots from forming in the heart or elsewhere in patients who take it to prevent them), Thyroid function tests for hyperthyroidism , Serum electrolytes to assess salt and potassium levels (Patrick, 2018).

2.7.3.Echocardiography

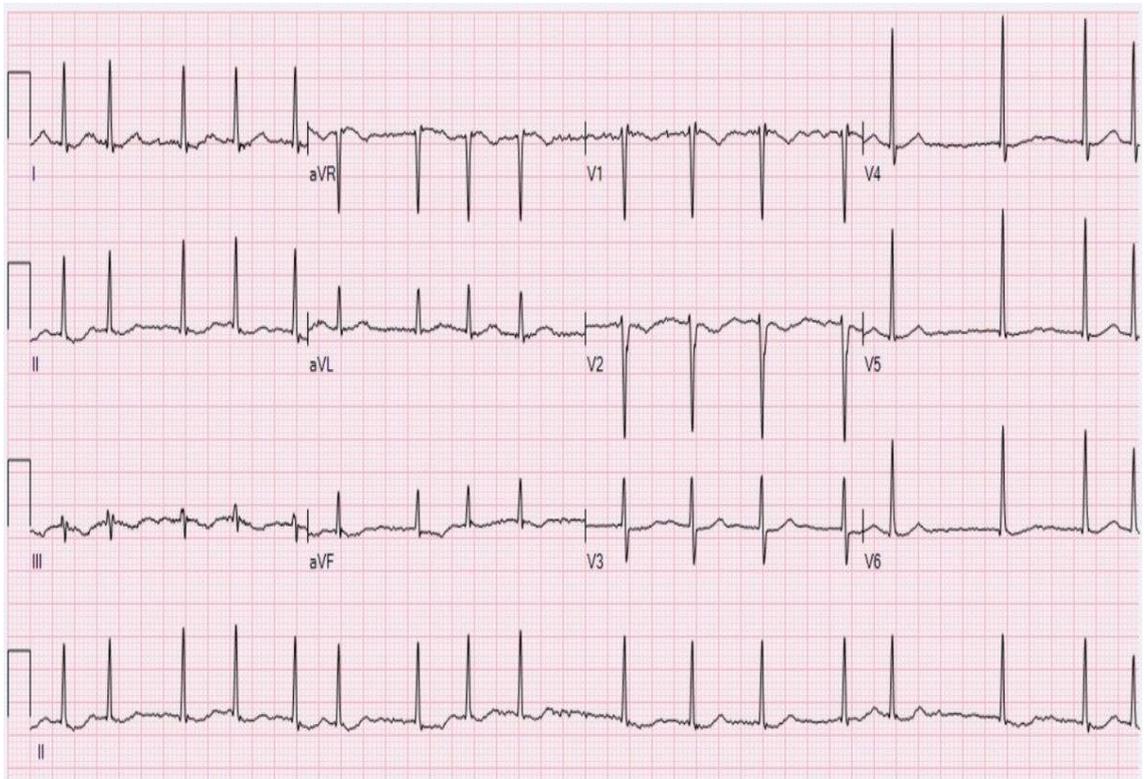
Echocardiography used to Examine heart size and shape, chamber sizes and pressures, valve structure and function, pericardial effusion, and aberrant wall motion. function systolic and diastolic (Gutierrez & Blanchard, 2011).

2.7.4. Photoplethysmography (PPG)

The use of a smartphone without any additional peripherals to measure changes in tissue blood volume produced by the pressure pulse has also been shown. A smartphone camera can be used to measure pulsatile changes in light intensity reflected from a finger illuminated by a pseudo white LED smartphone flash and placed in contact with the camera to obtain the PPG waveform (Chan et al. 2016).

2.7.5. Electrocardiography

Although only echocardiography is officially listed in guideline criteria, the most commonly employed diagnostic procedures for excluding concurrent illnesses in the literature are a 12-lead electrocardiogram and transthoracic echocardiography (Wyse ,et al. 2014). Such as (Figure2. 3).



Figure(2.2): ECG of a patient with atrial fibrillation with a rapid heart rate (Ewingdo 2020).

2.8.Nurses' Knowledge toward Atrial Fibrillation

The knowledge and abilities of nurses in delivering emergency arrhythmia care are critical in improving patient outcomes. Nurses should have knowledge, experience, and information about patients with arrhythmia, particularly those with shockable rhythms, because these patients are often unresponsive and pulseless, requiring critical care from a professional work team. On the basis of information obtained from the management, the nurse is responsible for all technological aspects of monitoring and professional decision-making. To maximize treatment efficiency and patient outcomes, healthcare practitioners must have sufficient knowledge to fulfill these tasks. The nurse wants to be in a strong position to provide patients with assistance and education in all aspects of self-management because of her nursing experience. (Al-Ahdal & Makki, 2020).

While strengthening nurses' knowledge and practice in the area of AF is vital, people with AF and their informal carers also need to learn more. Patients' knowledge may enhance their understanding of their illness and related therapies, adherence to therapy, self-care, and overall anticoagulation quality. Furthermore, not all applications are of good quality, thus all cardiovascular nurses must be capable of evaluating and recommending apps for patients with cardiovascular illness. There is need to continually improve cardiovascular nurses' abilities and knowledge in evaluating high-quality, trustworthy apps (Ferguson & Jackson, 2017).

2.9.Theories Atrial Fibrillation

2.9.1.Rotor Theory

One key component has been the application of Arthur Winfree's rotor (or spiral wave) concept to the functional understanding of cardiac

reentry, which the Jalife group has applied extensively to AF. The rotor concept is mainly a biophysical theory, advanced experimental studies (mostly employing high-density optical mapping), and in silico observations-based approach to reentry (Nattel & Dobrev, 2017).

Although the rotor theory of fibrillation began with Sir Thomas Lewis' discovery of circular electrical waves in AF more than a century ago, it was Winfree's demonstration of spiral waves in chemical media, and then in cardiac fibrillation, that cemented rotors' place at the center of modern fibrillatory dynamics (Quah et al., 2021).

2.9.2. Renewal Theory Approach in Atrial Fibrillation

Renewal theory is distinct from other methods to deterministic modeling of AF because, like quantum mechanics, it tries to understand probability distributions rather than simulating specific rotor actions. Because AF is disaggregated and uncorrelated, the parameters of these distributions may be easier to measure and model than constructing precise models for each particular rotor and wavelet behavior. The renewal strategy can be used in simulated, experimental, and human AF (Dharmapalani et al., 2019).

2.10. Nursing Assessment for Atrial Fibrillation

Patients with chest pain may have a non-revealing physical examination. However, if relevant diagnostic clues are present, a complete examination is required. The standard steps of inspection, palpation, percussion, and auscultation are all used in cardiac assessment (Salih, 2013).

Assessment to determine an accurate AF diagnosis An evaluation should include collecting a history to determine signs and symptoms, if any, as well as identifying risk factors that may predispose or trigger AF,

including those with paroxysmal AF who have a regular pulse and a normal ECG on inspection. Any patient with suspected AF should have a history that allows for a differential diagnosis, but it's crucial to ask the right questions about it: (Symptoms, Risk factors, Onset, Duration, Any precipitating factors or triggers, Past history to identify risk factors or triggers, Family history, Lifestyle issues, including substance abuse, smoking and drug (Cottrell 2012).

2.11.Nursing Management

Obtain 12 lead ECG- chaotic rhythm with no P waves, Measure vitals- if unstable may need cardioversion, Hook patient to cardiac monitor, Administer drugs as prescribed, Administer anticoagulant and Check neurovitals (Nesheiwat, et al 2021).

2.12.Nursing Role toward Patients with Atrial Fibrillation

In the prevention, identification, and monitoring of atrial fibrillation, all nurses play a vital role. Primary care and community nurses, on the other hand, who see the same patients over time have the best chance of detecting and managing long-term atrial fibrillation (Elliott & Kay, 2018).

Nursing interventions' importance in enhancing patient care outcomes has been thoroughly recognized. Patient education and care coordination are essential for optimal disease management in any illness. Several studies have demonstrated numerous benefits from nurse interventions employed in the management of atrial fibrillation or problems commonly linked with atrial fibrillation (such as heart failure). For example, 152 patients with atrial fibrillation and/or concomitant heart failure were randomly assigned to either a nurse-led, multidisciplinary

home-based intervention or standard post-discharge care in an Australian study by Inglis and colleagues (Cutugno, 2015).

The illness process can be difficult, but early detection, treatment, and management of atrial fibrillation can be simplified if the nurse/nurse practitioner is aware and skillfully trained. Deescalating medications, such as quitting aspirin if there is no clinically significant side effect, or training patients to avoid non-steroidal anti-inflammatory drugs while taking anticoagulants are two ways to reduce bleeding risk. Another factor that raises a patient's bleeding risk is more aggressive hypertension management; patient education on non-pharmacologic techniques to lower blood pressure would help to reduce the risk of increased bleeding (Young & Monique, 2019).

Healthcare practitioners should evaluate patients' adherence to DOACs, any thromboembolic or bleeding episodes, concomitant medicines, and over-the-counter pharmaceuticals, according to European Heart Rhythm Association guidelines. Blood tests for complete blood count, liver function, and renal function are also advised since they may reveal where a patient's anticoagulant therapy dose needs to be modified or indicate symptoms of anemia, leading to the investigation of undiscovered internal bleeding (Heidbuchel et al 2017).

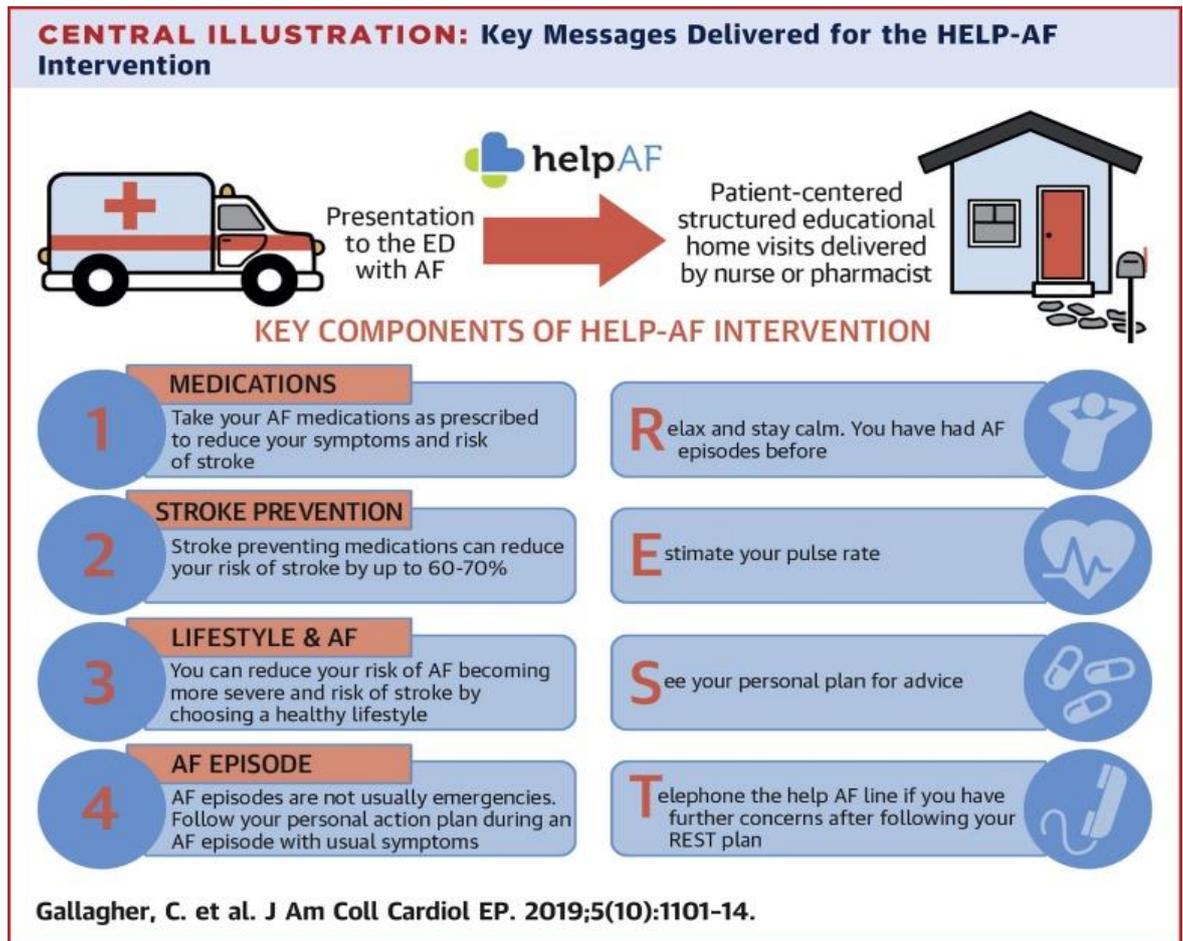
2.13. Patients Education About Atrial Fibrillation Disorder

Message 1: To minimize symptoms and the risk of stroke, take AF medicines.

Message 2: Stroke-prevention drugs can reduce the risk of stroke by up to 60% to 70%.

Message 3: By leading a healthy lifestyle, the patient should be counseled to reduce chance of developing AF and having stroke.

Message 4: AF bouts are typically not considered medical emergencies. During an AF episode with typical symptoms, advise the patient stick to particular action plan (figure 2.3) (Gallagher, 2019).



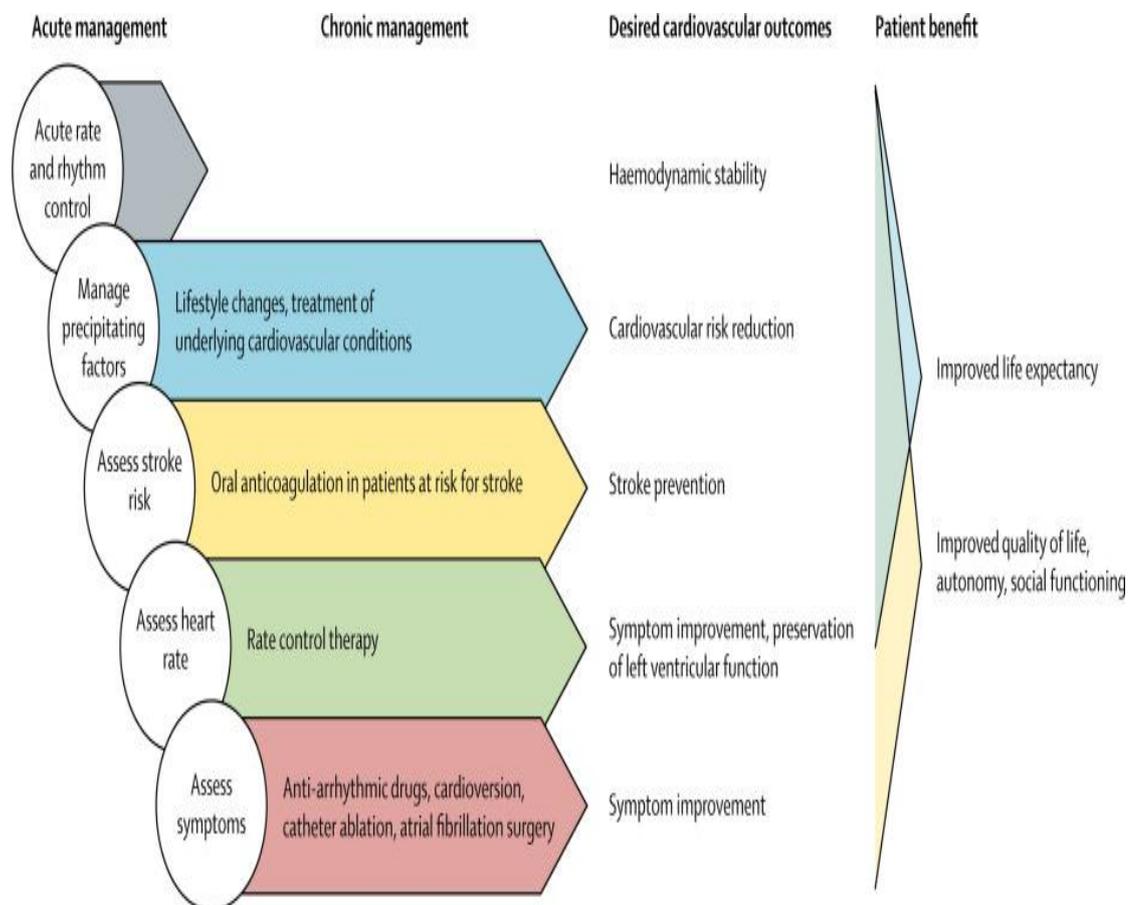
Figure(2.3): Messages to educate patients atrial fibrillation disorder(Gallagher 2019)

2.14.Management Atrial Fibrillation

Anticoagulation, rhythm control, and rate control are the three pillars of AF treatment. Clinicians are properly trained to look for reversible causes of AF in the hopes that treating these issues will be enough to prevent future AF occurrences. Excessive alcohol consumption, hyperthyroidism, and acute pulmonary difficulties should all be ruled out (Prystowsky & Padanilam, 2015).

Management of AF according to these domains (figure 2.4) would not only improve symptoms and hence quality of life, but it may also

extend AF patients' lives by lowering morbidity and mortality risks. Surprisingly, there is no substantial prospective evidence of mortality benefit for either rate or rhythm control therapy. Furthermore, studies comparing rhythm control management to rate control management revealed no significant advantage. Although full use of these domains is critical, the stroke prevention domain, in particular, has a large prognostic influence, as evidenced by lower mortality. As a result, every AF patient should undergo a basic stroke risk assessment. This is something that nurses and other allied health professionals will come across on a daily basis (Hendriks & Heidbüchel, 2019).



Figure(2.4):The five domains of managing atrial fibrillation (Kirchhof Paulus, 2017).

2.14.1. Management of Atrial Fibrillation with Medications

Calcium-channel blockers should not be used in patients who have a low left ventricular ejection fraction. Although observational research has raised concerns regarding higher mortality in people with AF and heart failure, digoxin can also be administered (Whitbeck et al., 2013).

Depending on the patient's underlying heart disease and concomitant circumstances, pharmacologic therapy can be start with amiodarone, dofetilide, dronedarone, flecainide, propafenone, or sotalol. The treatment of atrial fibrillation with amiodarone is not approved by the food and drug administration(FDA). Rhythm control should be abandoned whenever atrial fibrillation is classified as permanent (Hannibal et al., 2016).

Because of their relative efficacy and good safety profile, beta blockers are the treatment of choice for rate control in AF. They also been demonstrated to reduce mortality in individuals with heart failure according to a recent meta-analysis of 3066 patients (Kotecha et al 2014).

2.14.2.Manegment Atrial Fibrillation with Devices

2.14.2.1.Cardio-version

The most common reason for cardio-version is unresponsive atrial fibrillation that is unstable or poorly tolerated. Four weeks of pre- and post-cardioversion anticoagulation is required unless done urgently or when the duration of the arrhythmia is known to be less than 48 hours (Gutierrez & Blanchard, 2016).

Cardio-version, either by a synchronized direct current (DC) electrical shock (electrical cardio-version, ECV) or by the administration of antiarrhythmic drugs (AADs; pharmacological cardio-version, PCV), is an important part of the treatment of symptomatic patients with atrial fibrillation (AF) and atrial flutter (AFL) (Kirchhof et al., 2016).

Electrical cardioversion may also be used as a one-time diagnostic shock in purportedly asymptomatic patients with recurrent AF to see if they still have better exercise tolerance in sinus rhythm (Brandes et al., 2020).

The first reports on quinidine-based PCV of AF were published in the late 1940s, while synchronized DC shock-based ECV of AF was introduced in the early 1960s. These operations are inexpensive and simple to carry out, with a high overall success rate. However, there are other critical factors to consider before beginning this treatment, including the requirement for cardioversion (Pluymaekers, 2019).

During the procedure, short sedation with I.V. midazolam and/or propofol, as well as continuous blood pressure and oximetry monitoring, can be conducted safely (Furniss, 2015).

Direct current cardioversion tries to depolarize all cardiac cells quickly and simultaneously in order to restore sinus rhythm to the heart. The defibrillator is adjusted to deliver the electrical shock in synchrony with the QRS complex. Rapid cardioversion is advised for patients who are in an unstable situation. A patient with hemodynamic instability may have chest pain, shortness of breath, altered mentation, or hypotension. Anticoagulation should be started as soon as feasible and continued for four weeks in individuals who require urgent cardioversion (January et al., 2014).

Before elective cardioversion in a hemodynamically stable patient with atrial fibrillation, nurse should be use prudence. The risk of embolism of a thrombus from the left atrium into the central circulation is enhanced if atrial fibrillation lasts 48 hours or more, or if the duration is unclear. Anticoagulation is recommended three weeks before and four weeks after elective cardioversion in this circumstance (Copley & Hill, 2016).

2.14.2.2.Nurse Role toward Cardioversion

Nurse practitioners in California and many other states can provide medical treatment outside of their regular scope of practice as long as they have the necessary training and follow established protocols devised in partnership with a supervising physician to fulfill overlapping medical duties (Bersohn, 2017).

Other nursing responsibilities may include sedation during electro physiologic treatments in institutions where anesthesiologists are not frequently available, as well as technical parts of an electrophysiology research such as venous access, catheter positioning, and programmed stimulation. Mid-level providers may have more opportunities to engage in device implant procedures. Surgical subspecialties' frequent usage of physician assistants and nurse practitioners (Moote et al., 2011).

2.14.2.2 Risks of Cardioversion

The most dangerous side effect of AF is stroke. The stroke risk associated with elective cardioversion of AF ranges from 0.3% to 0.8% after the advised 3 weeks of therapeutic anticoagulation. 1 In our investigation, when cardioversion was carried out without anticoagulation within 48 hours of AF start, the incidence of thromboembolic consequences was 0.7%. However, we discovered that there was a higher risk of thromboembolic consequences (1.1%) when cardioversion was delayed by 12 hours or more from the onset of symptoms. Without anticoagulation, the risk of thromboembolism was minimal (0.3%) when AF lasted less than 12 hours. This retrospective study's primary drawback is the verification of AF duration based on actual evaluations made in the emergency room. (Nuotio,2014)

2.14.3. Catheter Ablation

Catheter ablation of paroxysmal atrial fibrillation (AF) has become a standardized process with well-defined treatment ideas and endpoints, as well as a fairly consistent rhythm outcome. The procedure's cornerstone is pulmonary vein isolation, which can be consistently achieved with either point-by-point radiofrequency ablation or balloon-based cryoablation. A randomized clinical research found that both methods have similar rhythm outcomes (Hindricks & Dagues, 2016).

The AF ablation catheter, which uses radiofrequency ablation, is a technological marvel. It can be given percutaneously into the left atrium via the right femoral vein and a transseptal hole between the right and left atrium. The catheter is deflectable, allowing it to be maneuvered to any portion of the left atrium's intricate geometry. It features a 4 mm platinum tip from which high-frequency radio waves (20,000 Hz) are generated and transmitted to a large indifferent electrode placed on the patient's skin. Because the heating is concentrated at the catheter's tip, ablation is limited to a narrow area (lesions are typically the size of the catheter's tip and 3–5 mm deep). Furthermore, the tip records the local electrical activity, the force applied, the temperature, and the impedance at the endocardial surface. All of this data is updated in real time and communicated to the operator. The catheter is now widely used non-fluoroscopic three-dimensional mapping devices that enable exact localization of catheters and cardiac structures utilizing electrical or magnetic fields formed around the patient, rather than radiography (Ang & Earley, 2016).

Nurse Role toward Catheter Ablation :

Nurse practitioners (NPs) play a critical role in both preparing patients for catheter ablation and providing post-procedure care. The patient should have a basic awareness of the catheter ablation procedure

and associated problems before giving informed permission. Patients and family members should be informed that the process may take many hours and that the patient may experience discomfort from laying on the table for an extended amount of time as well as pain during the surgery. Patients having light conscious sedation should receive pharmacological pain management. Assessment of vital signs, ensuring adequate circulation of peripheral pulses, monitoring for vascular complications such as groin hematoma and retroperitoneal bleeding, monitoring for neurological changes, and ensuring timely initiation of anticoagulation and antiarrhythmic therapy are all part of immediate post catheter ablation nursing management. The University of Pennsylvania's Hoke and Streletsky have created an in-depth nursing care plan and nursing competency list for post catheter ablation care. (Thanavaro, 2019).

Patients are usually discharged the same day as the surgery, and it's critical to get clear instructions on how to take drugs after CA. Antiarrhythmic medications are usually used for at least six months after the operation and may be required indefinitely. The risk of thromboembolism must be evaluated and reevaluated. Oral anticoagulation and catheter ablation monitoring should be explored. Anticoagulation therapy is required for at least 2 months after an AF ablation operation for all patients. (Xu et al.,2016)

Complication Catheter Ablation

Death, stroke, atrial-esophageal fistula, phrenic nerve injury, cardiovascular complications needing blood transfusions or additional procedures, or non-cardiovascular events requiring intervention are all major risks of catheter ablation. From 2003 to 2015, Yang et al. looked at the complication rates in 1,475 individuals. 34 Hematoma at the vascular

access site 1.3 %, cardiac tamponade 1.1% , and cerebrovascular accident 0.9 % were among the major consequences. (Yang et al.,2017).

2.15.Complications Atrial Fibrillation Disorder

2.15.1.Stroke

The fact that AFib can lead to systemic embolism and stroke complications, however, is perhaps its most significant feature. As a result, practically all AFib patients will require anticoagulant therapy, perhaps for the remainder of their lives. Warfarin has been the only available oral anticoagulant for a number of years.(Reiffel, 2014).

2.15.2.Cardiomyopathy

To force blood out of the heart, AF causes the ventricles to beat quicker. When the heart beats too fast for an extended period of time, the heart muscle becomes too weak to pump adequate blood to the body. This is referred to as cardiomyopathy (Carlisle et al., 2019).

2.15.3.Heart Failure

Atrial fibrillation can either cause HF de compensation or be the major stimulation for the onset of HF. Elevated left atrial pressures, decreased blood pressure, stroke volume, and cardiac output arise from a lack of atrial systole and irregular diastole timing (Carlisle, et al. 2019).

2.16.Prevention Atrial Fibrillation Disorder

Fibrillation works by lowering the chance of a heart attack. A heart-healthy way of living includes:

2.16.1. Not Smoking

Stopping smoking is the single most significant thing a patient can do to improve their heart health. It is difficult for a patient to quit smoking on his own, so the doctor should recommend a treatment plan to assist him.

2.16.2. Checking cholesterol

Have the patient's blood cholesterol levels examined at the doctor's office on a regular basis. If a patient's cholesterol levels are unacceptably high, the doctor may recommend dietary and medication adjustments to assist lower the numbers and protect cardiovascular health.

2.16.3. Controlling blood pressure

Every two years the patient's blood pressure is monitored. If the patient has high blood pressure or a history of coronary artery disease, the doctor may urge more frequent measurements.

2.16.3. Exercising regularly

After a heart attack, regular exercise can help improve heart muscle function. It is not necessary to engage in rigorous exercise. Walking 30 minutes five days a week, for example, can improve patient health.

2.16.4. Eating a heart-healthy diet

A diet high in saturated fat and cholesterol can restrict the arteries leading to the heart. As a family, make heart-healthy meals together. Fish is an important component of a heart-healthy diet. Omega-3 fatty acids are found in it. may aid in the reduction of blood cholesterol and the prevention of blood clots consume a variety of fruits and veggies (Eltoom, 2017).

2.17. Previous Studies

First Study

Keller (2020), Arrhythmia Knowledge for Acute Care Nurses: Defining Competency A convenience sample of 85 acute care nurses was used in this quantitative study to refine an instrument to assess varied

degrees of arrhythmia identification ability for acute care nurses. The majority of arrhythmia knowledge evaluation methods are developed internally by nursing professional development practitioners and are institution specific. This technique has resulted in the facility assessing nurses' minimum qualifications for rhythm recognition, but it has not resulted in the description of basic, intermediate, and advanced competency levels for practice. The Cardiac Arrhythmia Recognition Tool (CART) was created using 33 items separated into basic, intermediate, and advanced subscales, with an overall Cronbach's alpha of .84. Conclusion: This study makes a substantial contribution to the definition of arrhythmia competency in nurses caring for patients who are electrocardiographically monitored.

Second Study

Al-Ahdal & Makki (2020), Nurses' Performance in Emergency Arrhythmia Management Following Cardiac Surgery at Cardiac Centers in Khartoum, Sudan. Background: Arrhythmias are a well-known consequence of heart surgery and a major source of morbidity, duration of stay in the hospital, and increased financial costs. The purpose of this study was to evaluate nurses' effectiveness in the emergency care of arrhythmias following cardiac surgery in cardiac facilities. This was a descriptive cross-sectional study with 77 nurses. Nurses' knowledge and attitudes were assessed using a closed-ended questionnaire, while nurses' practice was assessed using an observational checklist. The data was entered into SPSS for Windows version 23.0.0 for descriptive and multivariate logistic regression analysis. The statistical significance level was set at 0.05, and the t-test, ANOVA, and chi-square tests were utilized. The information is given in tables and graphs. According to the findings, nurses' understanding of emergency management of post-cardiac surgery arrhythmias was poor (75.3%), nurses' practice was bad (57.1%), and nurses' attitude was favorable (84.4%). With P. Value = 0.000, there is a substantial relationship

between nursing qualification and knowledge, but no such relationship exists between nursing experience and knowledge. Value = 0.118. As a result, there is no significant relationship between nursing P experience and certification level. 0.901 and 0.717 are the values, respectively. More attempts to improve knowledge and practice are not required to increase the degree of practice and knowledge.

Third Study

(Ruhwanya, et al. 2018) Life threatening arrhythmias: Knowledge and skills among nurses working in critical care settings at Muhimbili National Hospital, Dar es Salaam, Tanzania. A descriptive cross-sectional study was carried out to examine the barriers to learning and applying certain information and abilities, as well as the level of knowledge and expertise of nurses in recognizing life-threatening arrhythmias and the necessary patient care. 141 nurses from Muhimbili National Hospital's critical care units were selected as a convenient sample. Results: Over three quarters of the participants were female, with the majority (44%) being between the ages of 31 and 40. When asked to rate their understanding of recognizing life-threatening arrhythmias, the majority (60%) performed well. When their skills were evaluated, the majority of nurses (84.4%) performed poorly. A total of 116 nurses (82.3%) were able to recognize a systole on an ECG strip, and 95% of them were highly knowledgeable about how to care for patients who were in a systole. Nurses were competent (97.9%) in placing electrodes on the patient's chest prior to connecting the patient to the cardiac monitor, despite their generally subpar performance. Many (68.8%) people cited the overwhelming workload as the main obstacle to learning and using new skills. Despite having a high degree of knowledge on life-threatening arrhythmias, the majority of participants performed badly when it came to recognizing and treating this patient group. It is crucial that hospital management take into account the

identified areas of weakness and endeavor to raise nurse skill levels and improve patient care.

Fourth Study

(Ibrahim, 2017) Effect of nursing care standards on nurses' performance in caring for patients with cardiac arrhythmias. The research design was quasi-experimental. The CCU at Benha University Hospital served as the setting for this investigation by et al. Experts and staff nurses working in the CCU were two categories of participants in the study. In the various stages of this study, three data collection tools were employed: first, an experts opinion sheet was created to evaluate the face and content validity of the designed NCSs; second, nurses were given a self-administered questionnaire to gauge their level of knowledge; and third, a nurses' practice observational checklist based on the designed NCSs was completed. Results The study's findings demonstrated that the majority of the jury was content with the NCS's overall form (facial and content validity). There was between 85.7 and 100% jury agreement. Additionally, the results showed a statistically significant increase in nurses' overall mean knowledge scores across all research items following the adoption of the standards ($P=0.000$) in comparison to the pre implementation period. Following the implementation of NCSs, there was a statistically significant improvement in the overall mean practice scores of nurses across all study items ($P=0.000$). Conclusion: After the installation of NCS, nurses' performance in the care of patients with cardiac arrhythmias in the CCU has improved statistically significantly. The study suggests that NCSs should be updated, improved, and made available in the CCU in both Arabic and English for the care of patients with cardiac arrhythmias.

Five Study

Hassan and Hassan (2012), In Kirkuk's teaching hospitals, the effectiveness of a nursing education program on nurses' awareness of arrhythmia. From the 17th of January 2011 to the 10th of June 2012, a quasi-experimental design was carried out at Azady and Kirkuk teaching hospitals. The researcher created and established a program and instruments to measure the study's objectives. The study group consisted of (40) nurses who had been exposed to the nursing educational program, while the control group consisted of (40) nurses who had not been exposed to the program. The knowledge evaluation includes (43) items for measuring the effectiveness of a nursing educational program. The instrument's reliability was confirmed by test and retest, and the instrument's validity was determined by a panel of specialists. The study's findings revealed that the educational program's effectiveness in improving nurses' knowledge of arrhythmia is favorable and clear. It also demonstrates that there has been significant improvement in the overall primary domains of nursing knowledge, with very significant differences in the study group. The study proposes that all nurses in our country's medical departments participate in the implementation of the educational program created in this study.

Chapter Three

Methodology

Chapter Three

Methodology

Scientific research methodology is a set of specific scientific standards, criterion and controls that are followed during the work of scientific research. Therefore, scientific research methodology is one of the important matters on which it builds and organizes good scientific research. One of the most important controls of scientific research is that it be organized and accurate, so that everyone who reads it and looks at its lines can see it benefits from it. In this chapter, the study design and all other scientific steps that were followed by the researcher from the beginning of the study until its completion will be covered.

3.1.Study Design

The descriptive research design technique entails questioning individuals of the study population with the sole purpose of describing the examined phenomena in terms of its type and degree of existence. Interrogating study participants on their knowledge of atrial fibrillation is used in the descriptive cross-sectional technique. Since the problem of the study is related to the present, and that its study will be done through direct interrogation, as well as the aim of this study is to stop at the limit of description of the study variables (Knowledge), and therefore the appropriate approach is the cross sectional designs, which depends on the study of the phenomenon and the statement of its characteristics and size, as well as the collection and interpretation of information.

The descriptive cross sectional study design is done through the limit includes the following:

1. The study's subject was limited to described knowledge variable.

2. The study's spatial limit were limited to the Babylon Health Directorate.
3. Time limits: The research took place over a period of from 19th October 2021 to 15th May 2022.
4. Nurses were the human limit of the study.

3.2.Administrative Arrangements

Before collecting the study data, the following official clearances were sought from appropriate authorities:

1. Approval from the University of Babylon/ College of Nursing Council for the study (Appendix A1).
2. Official permission obtained from ethical committee university of Babylon /college of nursing .
3. Official permissions were also obtained from the Babylon Health Directorate (Training and Development Division) in order to formally access the hospitals (Appendix A2).

3.3.Setting of the Study

The study was carried out in Hilla City/Babylon Province, at three sites included cardiac care units. These are include.

3.3.1.Marjan Teaching Hospital

It is a hospital located in the city of Hilla in Babil Governorate, Iraq. It is a public educational medical institution that includes many specialized centers, which provide free services to the citizens of the governorate and neighboring areas. This hospital includes specialized medical centers dealing with the treatment of diseases of the digestive system, liver, physiotherapy, diabetes, cancer diseases, resuscitation, heart surgery and dialysis, in addition to the presence of a special emergency unit

as well as multiple consulting suites in internal medicine, psychology, dermatology, the elderly, and more.

3.3.2.Imam Al-Sadiq Hospital

3.3.2.1.Babylon center for cardiac surgery and catheterization

It is a center that contains the Catheterization Division at Imam Al-Sadiq Hospital (peace be upon him), providing its medical and therapeutic services, as it conducts therapeutic catheter interventions for emergency and cold cases, diagnostic catheterization operations, and implanting electrical devices.

3.3.2.2.Cardiac Care Unit

It is a center that contains a resuscitation department in the lobby that receives patients suffering from heart attacks, catheter interventions and palpitations .

3.3.3. Shahid AL-Mihrab center for cardiac surgery and catheterization

It is a specialized center for cardiovascular surgery in Babylon, located in Marjan Medical City, which receives patients with heart problems.

3.4.Sample of the Study

The non-probability(Convenience) sample method was selected to achieve the objectives of the study. The total number of nurses working in the cardiac care units throughout both hospitals and center was 237 nurse (67 in Al-Imam Al-Sadiq Teaching Hospital, 50 in Margan Teaching Hospital catheterization 120 in Shahid Al-Mihrab Center for cardiac surgery and catheterization). 20 nurses were selected to present the pilot

study, 200 nurses participated in the original study, and 17 nurses refused to participate in the study, as shown in figures (3-1).

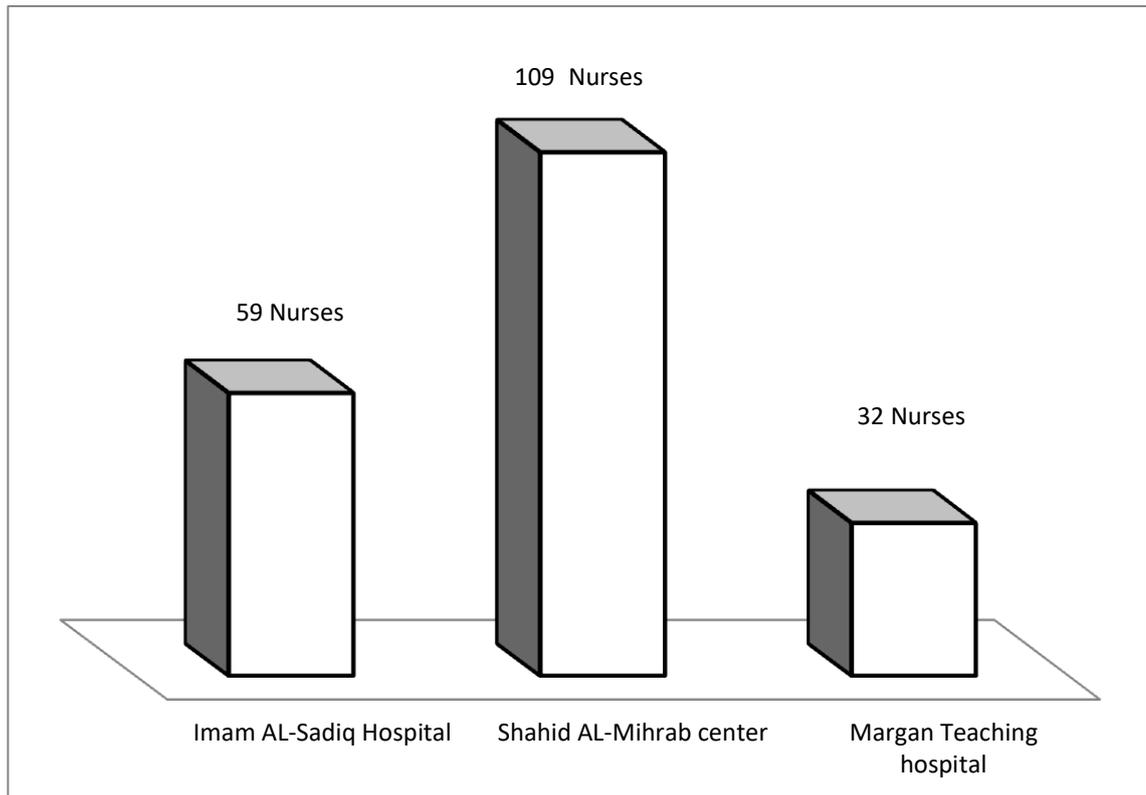


Figure 3-1: Distribution of Selected Sample according to Centers

3.5. Study Instruments

The questionnaire is one of the means to help collect data that contribute to achieving the results expected by the study, so the researcher designed this questionnaire, which aims to clarify the study objectives and significance by obtaining answers to the study's questions.

So the questionnaire items was constructed by the researcher for the present study. The questionnaire based on extensive review of related studies and available literatures

This questionnaire consists of two parts; socio-demographic sheet and MCQ questions deals with nurses knowledge about atrial fibrillation disorder.

Part I: This section composed of socio-demographic information which include: nurses age, gender, education level, years of experience, years of experiences in cardiac care unit and number of training sessions related to atrial fibrillation (Appendix B).

Part II: This section deals with nurses knowledge towards atrial fibrillation and include the following:

- A. Knowledge related to definition and causes atrial fibrillation: Which composed of (8) items.
- B. Knowledge related to signs, symptoms and diagnostic test for atrial fibrillation: Which composed of (6) items.
- C. Knowledge related to risk factors and complications for atrial fibrillation: Which composed of (4) items.
- D. Knowledge related to treatment for atrial fibrillation: Which composed of (9) items.
- E. Knowledge related to nursing intervention for patients of atrial fibrillation: Which composed of (13) items.

The researcher adhered to the rules of writing the questionnaire due to the importance of the type of information that the researcher is keen to be sufficient and comprehensive for all aspects of the problem and can be relied upon and trusted. The type of questions was of the closed type, which required answering with reference to what was appropriate.

3.6. Validity of the Questionnaire

The questionnaire's validity refers to its ability to measure what it was created to evaluate, while honesty refers to the questionnaire's

inclusion of all aspects that must be included in the analysis on one side, and the clarity of its contents on the other. On the other hand, terminology must be understood by everyone who uses it.

To improve the questionnaire's validity, it was submitted to 16 experts in various sectors of nursing and consultant doctors (Appendix C). Experts were asked for their opinions and comments on each of the study questionnaire's items in terms of linguistic appropriateness, relationship with the dimension of study variables to which it was assigned, and suitability for the study population.

A group of specialists determines the content validity. There are two faculty members from the College of Nursing University of Babylon, one from the College of Nursing University of Kufa, two from the College of Nursing University of Karbala, one from the College of Nursing University of AL-Ameed, seven from the College of Nursing University of Baghdad, and three from the Babylon Health Directorate (Consultant Doctors).

Minor changes to several elements were suggested by the experts, and these were made in accordance with their ideas, after which the final document was prepared in preparation for conducting the study.

3.7. Rating Scoring

Each item of the questionnaire was answered by the participants, which required answering with reference to what was appropriate related as correct responses and incorrect responses, the scoring system with adapted to each responses are (2) for correct and (1) for incorrect

3.8.Pilot Study

This preliminary study was conducted to determine the stability and credibility of the study tool, clarity and its efficiency which confirmed, and standard time required to collect data for each subject which can estimated during the interview procedures and to difficulties identification that may encounter. . The researcher applied it to a random exploratory sample of 20 nurses as composed 10% of original sample. Where the members of this sample were later excluded from the original sample on which the final study was conducted and took place in Margan teaching hospital from 8th February to 12th February 2022

The pilot study aimed to achieve the following objectives.

1. Adequacy of research tools development and testing
2. Evaluation of the instrument's viability.
3. Identifying any logistical issues that may arise as a result of the proposed methods.
4. Assessment of proposed data analysis approaches for the detection of potential issues.
5. The researcher's time estimate during data collecting.

3.8.1.Results of pilot study

- 1.The questionnaire is reliable.
- 2.The time required for answering the questionnaire ranged from (15-20) minutes.
- 3.The questionnaire items were clarify and understood the phenomenon underlying of the study (Table 3-1).

Before the questionnaire reached its final form, it went through the following stages:

1. Determining the data that will be collected through the questionnaire according to the study questions.
2. Determining the method and format of the questionnaire.
3. Determining the type of criterion that determines the type of answer in the questionnaire.
4. Presenting the questionnaire to the supervising to express his opinion and observations in developing the questionnaire and modifying it based on his observations.
5. Writing the questionnaire in its final form, then printing, reviewing and distributing it.

3.9. Reliability of the Questionnaire:

The reliability of the study instruments entails ensuring that the result will be almost identical if it is administered to the same persons multiple times at different times. Reliability coefficient using the test coefficient of Alpha Cronbach as shown below.

Table3-1: Reliability of the Studied Questionnaire (n=20)

<i>Reliability of Cronbach's Alpha</i>	
Knowledge=40 items	0.81

3.10. Ethical Considerations

Ethical obligations are one of the most important things that the researcher must follow and abide it when doing the study. Before the

starting of collect the data from the community that has been identified for the study, the researcher should clarify the main purpose and desired goal of conducting this study for the sample to be including in the study, as well as adhere to the strict confidentiality of the data taken from the study sample and pledge to use it for scientific purposes related to the study only.

Before the starting of gathering the data from the sample who are participating in the study, the researcher given a brief explanation about the scientific background of the research and the purpose of conducting. Nurses were verbally informed about the study aims and were asked to participate and this participation were voluntary. After they consented to participate in the study, they were given an anonymous questionnaire to complete in order to protect the participants' privacy.

3.11.Methods of Data Collection

After obtaining the approval of the Babylon Health Directorate and verifying the validity and reliability of the questionnaire. The researcher distributed the questionnaire to the participants (Nurses), explained the instructions, answered their questions regarding the questionnaire form, urged them to participate and thanked them for the cooperation. The self-report techniques was used on individual bases, and each report took (15-20) minutes after taking the important steps that must be included in the study design. The data was carried out from 15th February to 20th April 2022

3.12.Methods of Statistics Data Analysis

In order to statistically analyze the data collected from the study sample to arrive at the results, the researcher used the SPSS version (20) and Microsoft Excel (2010) program to analyze this data and deal with it

statistically, to find the relationships between the variables, and obtain the final results of the research based on a set of statistical tests.

3.12.1.Descriptive approach

Descriptive statistics includes a set of mathematical and statistical methods that are adopted to describe the main features of a data quantitatively by using tables and charts. Descriptive statistics always aim to present and describe the data which is required to be processed, organized, summarized and categorized, as well as presenting them in a simple and clear manner that makes it easier for the recipient to recognize and understand its content. The analysis performed through use:

A. Statistical tables "Frequencies and percent" which are:

$$\% = \frac{\text{Frequency}}{\text{Sample Size}} \times 100$$

B. Statistical Mean " M_{\pm} ".

The average score can be calculated by using the following:

$$M.S = \frac{\sum_{ri=1}^{Fi} Si}{\sum_{ri=1}^{Fi}} \times 100$$

For Nurses Knowledge

The overall responses according to total mean of score which follow:

$$\text{total mean of scores} = \frac{\text{Maximum total sores} - \text{minimum total sores}}{3}$$

M= 40-53 refers to Poor knowledge.

M=54-66 refers to Fair Knowledge.

M=67-80 refers to Good Knowledge.

C. Standard Deviation test $\pm SD$.

$$SD = \sqrt{\frac{1}{n-1} \sum_{i=1}^n (X_i - \bar{X})^2}$$

D. It uses a correlational coefficient "Cronbach alpha" used in estimating the internal consistency of the study tool, which can be calculated by using the following:

$$\alpha = \frac{K}{K-1} \left[1 - \frac{\sum_{i=1}^K \sigma_{ii}}{\sum_{i=1}^K \sum_{j=1}^K \sigma_{ij}} \right]$$

3.12.2. Inferential approach

Chi-Squared Test

To check the difference between the number of nominal standard of random variable dichotomous as "Nurses Knowledge and demographic characteristics".

$$\chi^2 = \frac{\sum_{all\ i} (O_i - E_i)^2}{E_i}$$

chi-squared= " χ^2 "

sum =" Σ "

"Where O_i is the observe frequencies of groups i and E_i is the expected frequencies".

They $\chi^2_{obs.} < \chi^2_{crit.}$ = not significant ly.

As compared with the D.f.

They $\chi^2_{obs.} > \chi^2_{crit.}$ = significance,

value for measuring important compared to the level, are used as follows:

NS : Non significance at probability-value >0.05 .

S : Significance at probability-value <0.05 .

Chapter Four

Results

Chapter Four

Results of the Study

This chapter extensively introduces the outcomes of the research in tables and these refer to the objectives of this report, which are as follows:

Table 4-1: Descriptive Statistic of Socio-Demographic Variables (SDVs)

Variables	Classification	Freq.	%
Age/years ($M \pm SD = 26.98 + 5.797$)	20-29years old	162	81.0
	30-39years old	26	13.0
	40-49years old	8	4.0
	≥ 50 years old	4	2.0
	Total	200	100.0
Gender	Male	104	52.0
	Female	96	48.0
	Total	200	100.0
Education level	Secondary school nursing	38	19.0
	Diploma nursing	109	54.5
	Bachelors nursing	51	25.5
	Postgraduate nursing	2	1.0
	Total	200	100.0
Years of Experience in Nursing	<5 years	106	53.0
	5-10 years	76	38.0
	>10 years	18	9.0
	Total	200	100.0
Years of Experience in CCU	<5 years	160	80.0
	5-10 years	32	16.0
	>10 years	8	4.0
	Total	200	100.0
Training Sessions	No trained	52	26.0
	One sessions	89	44.5
	Two and more sessions	59	29.5
	Total	200	100.0

Finding show participants age, the mean age is 26, the age 20-29 years old were recorded the highest percentage ($n=162$; 81%), followed by those who are age 30-39 years old ($n=26$; 13%), followed by those who are age 40-49 years and old ($n=8$; 4%), and followed by those who are age \geq 50 years old ($n=4$; 2%).

In regard with gender, the male nurses were constituted more than half ($n=104$; 52%), as compared with those who are female nurses ($n=96$; 48%).

Respected to the education level, the diploma in nursing were recorded the highest percentage ($n=109$; 54.5%), followed by those who are bachelors nurses ($n=51$; 25.5%), followed by those who are secondary school nursing ($n=38$; 19%), and followed by those who are postgraduate ($n=2$; 1%).

In terms of years of experience, nurses expressed less than five years of experience ($n=106$; 53%), followed by those who had 5-10 years ($n=76$; 38%) and followed by those who had more than 10 years ($n=18$; 9%).

Years of experience in CCU, it is obvious from findings that the five years of experience were predominated ($n=160$; 80%), followed by those who had 5-10 years ($n=32$; 16%) and followed by those who had more than 10 years ($n=8$; 4%).

Training sessions related findings, the most of nurses participated in one sessions ($n=89$; 44.5%), as compared with those who are more than 2 sessions ($n=59$; 29.2%).

4.2.Nurses Knowledge regarding Atrial Fibrillation Disorder

Table 4-2-1:Knowledge related to Definition and Causes of Atrial Fibrillation

List	Definition and Causes of Atrial fibrillation Items	Weighted	Freq.	%	M.s ± SD	Ass.
1	Which of the following is the definition Atrial fibrillation ?	Incorrect	62	31.0	1.69±0.463	Good
		Correct	138	69.0		
		Total	200	100.0		
2	Which of the following are a types for Atrial fibrillation ?	Incorrect	155	77.5	1.22±0.418	Poor
		Correct	45	22.5		
		Total	200	100.0		
3	Which of the following is a Paroxysmal Atrial fibrillation?	Incorrect	143	71.5	1.28±0.452	Poor
		Correct	57	28.5		
		Total	200	100.0		
4	What happens within the heart during Atrial fibrillation ?	Incorrect	127	63.5	1.36±0.482	Moderate
		Correct	73	36.5		
		Total	200	100.0		
5	What is common type arrhythmia ?	Incorrect	132	66.0	1.34±0.474	Moderate
		Correct	68	34.0		
		Total	200	100.0		
6	Which of the following is a common cause of atrial fibrillation?	Incorrect	130	65.0	1.35±0.478	Moderate
		Correct	70	35.0		
		Total	200	100.0		
7	The following are medical conditions that is associated with Atrial fibrillation	Incorrect	150	75.0	1.25±0.434	Poor
		Correct	50	25.0		
		Total	200	100.0		
8	What is triggers factors for Atrial fibrillation?	Incorrect	120	60.0	1.40±0.491	Moderate
		Correct	80	40.0		
		Total	200	100.0		

"(M.s) Mean of score, (SD) Standard deviation, Level of Assessment (Poor ≤1.33, Moderate=1.34-1.67, Good ≥1.68)"

In terms of statistical mean and standard deviation, this table demonstrated that the nurses expressed a poor responses regards knowledge related to definition and causes of Atrial fibrillation at all items of the scale

($M.s \leq 1.33$) except, the items number (4, 5, 6 and 8) the responses were Moderate ($M.s=1.34-1.68$), as well as, the items number (1) the responses were Good ($M \geq 1.68$).

Table 4-2-2: Overall Nurses Knowledge related to Definition and Causes of Atrial Fibrillation

Weighted	Freq.	%	$M \pm SD$
Poor ($M=8-10$)	112	56.0	10.90 ± 2.709
Moderate ($M=11-13$)	36	18.0	
Good ($M=14-16$)	52	26.0	
Total	200	100.0	

M: Mean for total score, SD=Standard Deviation for total score

Findings illustrated that the (56%) of nurses expressed poor level of knowledge related to definition and causes of atrial fibrillation as described by low average $10.90 (\pm 2.709)$.

Table 4-2-3: Knowledge related to Signs, Symptoms and Diagnostic Test for Atrial Fibrillation

List	Signs, Symptoms and Diagnostic Test for Atrial Fibrillation items	Weighted	Freq.	%	$M.s \pm SD$	Ass.
1	Which of these is not a symptoms of atrial fibrillation?	Incorrect	143	71.5	1.28 ± 0.452	Poor
		Correct	57	28.5		
		Total	200	100.0		
2	Which of the following is useful diagnostic method for diagnosis of atrial fibrillation ?	Incorrect	135	67.5	1.32 ± 0.469	Poor
		Correct	65	32.5		
		Total	200	100.0		
3	Which of the following is characteristics electrocardiography (ECG) in patient with atrial fibrillation?	Incorrect	152	76.0	1.24 ± 0.428	Poor
		Correct	48	24.0		
		Total	200	100.0		
4	Normal heart beats from ___ to ___ time per	Incorrect	135	67.5	1.78 ± 0.569	Good

	minute are	Correct	65	32.5		
		Total	200	100.0		
5	Which of the following is not diagnostic test for atrial fibrillation	Incorrect	148	74.0	1.26±0.439	Poor
		Correct	52	26.0		
		Total	200	100.0		
6	How is action of a holter device?	Incorrect	143	71.5	1.28±0.452	Poor
		Correct	57	28.5		
		Total	200	100.0		

"(M.s) Mean of score, (SD) Standard deviation, Level of Assessment (Poor ≤ 1.33 , Moderate=1.34-1.67, Good ≥ 1.68)"

In light of statistical mean and standard deviation, this table demonstrated that the nurses expressed a Poor responses regards knowledge related to signs, symptoms and diagnostic test for atrial fibrillation at all items of the scale ($M.s \leq 1.33$) except, the items number (4) the responses were Good ($M.s \geq 1.68$).

Table 4-2-4: Overall Nurses Knowledge related to Signs, Symptoms and Diagnostic Test for Atrial Fibrillation

Weighted	Freq.	%	$M \pm SD$
Poor ($M=6-7$)	120	59.7	6.72±2.032
Moderate ($M=9-8$)	28	13.9	
Good ($M=10-12$)	53	26.4	
Total	201	100.0	

M: Mean for total score, SD=Standard Deviation for total score

Findings illustrated that the (59.7%) of nurses expressed poor level of knowledge related to signs, symptoms and diagnostic test for atrial fibrillation as described by low average 6.72 (± 2.032).

Table 4-2-5: Knowledge related to Risk Factors and Complications for Atrial Fibrillation

List	Risk Factors and Complications for Atrial Fibrillation	Weighted	Freq.	%	<i>M.s ± SD</i>	Ass.
1	Which of the following non-modifiable risk factors for atrial fibrillation?	Incorrect	104	52.0	1.48±0.500	Moderate
		Correct	96	48.0		
		Total	200	100.0		
2	Which of the following modifiable risk factors for atrial fibrillation?	Incorrect	87	43.5	1.56±0.497	Moderate
		Correct	113	56.5		
		Total	200	100.0		
3	Who are the people most at risk of developing atrial fibrillation ?	Incorrect	136	68.0	1.32±0.467	Poor
		Correct	64	32.0		
		Total	200	100.0		
4	Which of the following is not Serious complications for atrial fibrillation?	Incorrect	117	58.5	1.41±0.493	Moderate
		Correct	83	41.5		
		Total	200	100.0		

"(M.s) Mean of score, (SD) Standard deviation, Level of Assessment (Poor ≤1.33, Moderate=1.34-1.67, Good ≥1.68)"

In light of statistical mean and standard deviation, this table demonstrated that the nurses expressed a Moderate responses regards knowledge related to risk factors and complications for atrial fibrillation at all items of the scale ($M.s=1.34-1.67$) except, the items number (3) the responses were Poor ($M.s=1-1.33$).

Table 4-2-6:Overall Nurses Knowledge related to Risk Factors and Complications for Atrial Fibrillation

Weighted	Freq.	%	<i>M ± SD</i>
Poor (<i>M=4-5</i>)	81	40.5	6.78±2.487
Moderate (<i>M=6-7</i>)	85	42.5	
Good (<i>M=7-8</i>)	34	17.0	
<i>Total</i>	200	100.0	

M: Mean for total score, SD=Standard Deviation for total score

Findings illustrated that the (42.5%) of nurses expressed Moderate knowledge related to risk factors and complications for atrial fibrillation as described by low average 6.78 (± 2.487).

Table 4-2-7:Knowledge related to Treatment for Atrial Fibrillation

List	Treatment of Atrial fibrillation Items	Weighted	Freq.	%	<i>M.s ± SD</i>	Ass.
1	Which of the following is antiarrhythmic medications that is help return the heart to its normal sinus rhythm ?	Incorrect	130	65.0	1.35±0.478	Moderate
		Correct	70	35.0		
		Total	200	100.0		
2	Which of the following is action the anticoagulant medications to AF patients?	Incorrect	126	63.0	1.37±0.484	Moderate
		Correct	74	37.0		
		Total	200	100.0		
3	Treatment AF patients depending on the condition of the patient, which of the following is methods treatments atrial fibrillation ?	Incorrect	143	71.5	1.28±0.452	Poor
		Correct	57	28.5		
		Total	200	100.0		
4	When caring for a patient with atrial fibrillation who has a prescription for metaprolol .what should the nurse watch when giving this medication ?	Incorrect	142	71.0	1.29±0.454	Poor
		Correct	58	29.0		
		Total	200	100.0		
5	Which of the following information would cause the nurse to withhold digoxin from the patient with AF?	Incorrect	144	72.0	1.28±0.450	Poor
		Correct	56	28.0		
		Total	200	100.0		
6	Which of the following is Serious side effects to the digoxin medication?	Incorrect	152	76.0	1.24±0.428	Poor
		Correct	48	24.0		
		Total	200	100.0		
7	Which of the following involves giving the heart a controlled electric shock to restore a normal rhythm ?	Incorrect	129	64.5	1.35±0.479	Moderate
		Correct	71	35.5		
		Total	200	100.0		
8	Which of the following are a types	Incorrect	162	81.0	1.19±0.393	Poor

	cardioversion ?	Correct	38	19.0		
		Total	200	100.0		
9	Which intervention should the nurse implement when defibrillating (D.C shock)a patient who is in atrial fibrillation ?	Incorrect	147	73.5	1.26±0.442	Poor
		Correct	53	26.5		
		Total	200	100.0		

"(M.s) Mean of score, (SD) Standard deviation, Level of Assessment (Poor ≤ 1.33 , Moderate=1.34-1.67, Good ≥ 1.68)"

In light of statistical mean and standard deviation, this table demonstrated that the nurses expressed a Poor responses regards knowledge related to treatment of Atrial fibrillation at all items of the scale ($M \leq 1.33$) except, the items number (1, 2 and 7) the responses were Moderate ($M=1.34-1.68$)

Table 4-2-8:Overall Nurses Knowledge related to Treatment of Atrial Fibrillation

Weighted	Freq.	%	$M \pm SD$
Poor ($M=9-12$)	118	59.0	11.62±3.041
Moderate ($M=13-15$)	61	30.5	
Good ($M=16-18$)	21	10.5	
Total	200	100.0	

M: Mean for total score, SD=Standard Deviation for total score

Findings illustrated that the (59%) of nurses expressed poor level of knowledge related to treatment of atrial fibrillation as described by low average 11.62 (± 3.041).

Table 4-2-9: Knowledge related to Nursing Intervention for Patients with Atrial Fibrillation

List	Nursing Intervention for Patients with Atrial fibrillation Items	Weighted	Freq.	%	M.s ± SD	Ass.
1	What is the immediate management when patient admitted in cardiac care unit?	Incorrect	129	64.5	1.35±0.479	Moderate
		Correct	71	35.5		
		Total	200	100.0		
2	What are common nursing diagnosis for patient with atrial fibrillation ?	Incorrect	129	64.5	1.35±0.479	Moderate
		Correct	71	35.5		
		Total	200	100.0		
3	Which of the following is a nurse role for the patient with atrial fibrillation is ambulating and suddenly says "I feel really dizzy" ?	Incorrect	147	73.5	1.26±0.442	Poor
		Correct	53	26.5		
		Total	200	100.0		
4	The patient in complete heart block .which intervention should the nurse implement first ?	Incorrect	142	71.0	1.29±0.454	Poor
		Correct	58	29.0		
		Total	200	100.0		
5	What should the nurse watch first when evaluating the response of a patient with atrial fibrillation to cardioversion ?	Incorrect	181	90.5	1.09±0.293	Poor
		Correct	19	9.5		
		Total	200	100.0		
6	Which of the following is a nurse role pre-procedure pacemaker?	Incorrect	129	64.5	1.35±0.479	Moderate
		Correct	71	35.5		
		Total	200	100.0		
7	Which of the following is a nurse role during procedure pacemaker?	Incorrect	123	61.5	1.38±0.487	Moderate
		Correct	77	38.5		
		Total	200	100.0		
8	Which of the following is role nurse in educate the patient after discharge from hospital after pacemaker surgery ?	Incorrect	122	61.0	1.39±0.488	Moderate
		Correct	78	39.0		
		Total	200	100.0		
9	Which of the following Teaching self-care about nutrition to patient with atrial fibrillation ?	Incorrect	144	72.0	1.28±0.450	Poor
		Correct	56	28.0		
		Total	200	100.0		
10	Which of the following is health education for atrial fibrillation patients about exercises?	Incorrect	138	69.0	1.31±0.463	Poor
		Correct	62	31.0		
		Total	200	100.0		
11	Which of the following is important of follow up atrial fibrillation patients?	Incorrect	153	76.5	1.23±0.425	Poor
		Correct	47	23.5		
		Total	200	100.0		
12	The patient with chronic atrial fibrillation, what is the role of the nurse in educating the patient during his discharge?	Incorrect	162	81.0	1.19±0.393	Poor
		Correct	38	19.0		
		Total	200	100.0		
13	These of following is a health education about preventing complications of atrial fibrillation	Incorrect	132	66.0	1.34±0.474	Moderate
		Correct	68	34.0		
		Total	200	100.0		

"(M.s) Mean of score, (SD) Standard deviation, Level of Assessment (Poor ≤1.33, Moderate=1.34-1.67, Good ≥1.68)"

In light of statistical mean and standard deviation, this table demonstrated that the nurses expressed a Poor responses regards knowledge related to nursing intervention for patients with Atrial

fibrillation at all items of the scale ($M.s \leq 1.33$) except, the items number (1, 2, 6, 7, 8 and 13) the responses were Moderate ($M.s = 1.34-1.68$).

Table 4-2-10: Overall Nurses Knowledge related to Nursing Intervention for Patients Atrial Fibrillation

Weighted	Freq.	%	$M \pm SD$
Poor ($M=13-17$)	111	55.5	16.84 ± 4.043
Moderate ($M=18-21$)	46	23.0	
Good ($M=22-26$)	43	21.5	
<i>Total</i>	200	100.0	

M: Mean for total score, SD=Standard Deviation for total score

Findings illustrated that the (55.5%) of nurses expressed poor level of knowledge related to nursing intervention for patients with atrial fibrillation as described by low average $16.84 (\pm 4.043)$.

Table 4-2-11: Overall Assessment of Nurses' knowledge toward Atrial Fibrillation Disorder in Cardiac Care Units

Weighted	Freq.	%	$M \pm SD$
Poor ($M=40-53$)	110	55.0	52.87 ± 11.900
Moderate ($M=54-66$)	54	27.0	
Good ($M=67-80$)	36	18.0	
<i>Total</i>	200	100.0	

M: Mean for total score, SD=Standard Deviation for total score

The analysis of knowledge atrial fibrillation disorder in cardiac care unit as described by low level mean scores $52.87 (\pm 11.900)$; and according to the study criteria, the nurses expressed a poor level of knowledge ($n=110$; 55%).

4.3. Association between Nurses Knowledge related to Atrial Fibrillation and their Socio-demographic Information

Table 4-3-1: Association between Nurses Knowledge and their Age

	Rating	Knowledge			Total	d.f	Sig.	
		Poor	Moderate	Good				
Age	20-29years old	85	47	30	162	6	$\chi^2 = 5.148$ P-value=0.520	NS
	30-39years old	17	5	4	26			
	40-49years old	4	2	2	8			
	≥50 years old	4	0	0	4			
	Total	110	54	36	200			

" χ^2 = Chi-square, Df= Degree of freedom, P-value= Probability value, S= significant, NS= non significant, S= significant, HS= high significant"

Findings demonstrated that there is no-significant association between nurses knowledge related to atrial fibrillation disorder with regard to age groups ($p > 0.05$).

Table 4-3-2: Association between Nurses Knowledge and their Gender

	Rating	Knowledge			Total	d.f	Sig.	
		Poor	Moderate	Good				
Gender	Male	28	32	22	82	2	$\chi^2 = 24.751$ P-value=0.001	S
	Female	82	22	14	118			
	Total	110	54	36	200			

" χ^2 = Chi-square, Df= Degree of freedom, P-value= Probability value, S= significant, NS= non significant, S= significant, HS= high significant"

Findings demonstrated that there is significant association between nurses knowledge related to atrial fibrillation disorder with regard to gender ($p < 0.05$).

Table 4-3-3: Association between Nurses Knowledge and their Education

Education	Rating	Knowledge			Total	d.f	Sig.	
		Poor	Moderate	Good				
School nursing		32	4	2	38	6	$\chi^2 = 91.982$ P-value=0.001	S
Diploma		78	21	10	109			
Bachelors		0	28	23	51			
Postgraduate		0	1	1	2			
Total		110	54	36	200			

" χ^2 = Chi-square, Df= Degree of freedom, P-value= Probability value, S= significant, NS= non significant, S= significant, HS= high significant"

Findings demonstrated that there is significant association between nurses knowledge related to atrial fibrillation disorder with regard to education level ($p < 0.05$).

Table 4-3-4: Association between Nurses Knowledge and their Years Experiences

Years Experiences	Rating	Knowledge			Total	d.f	Sig.	
		Poor	Moderate	Good				
<5 years		86	9	11	106	4	$\chi^2 = 119.313$ P-value=0.001	S
5-10 years		22	44	10	76			
>10 years		2	1	15	18			
Total		110	54	36	200			

" χ^2 = Chi-square, Df= Degree of freedom, P-value= Probability value, S= significant, NS= non significant, S= significant, HS= high significant"

Findings demonstrated that there is significant relationship between nurses knowledge related to atrial fibrillation disorder with regard to years of experience ($p < 0.05$).

Table 4-3-5: Association between Nurses Knowledge and their Years Experiences in C CU

Years Experiences	Rating	Knowledge			Total	d.f	Sig.	
		Poor	Moderate	Good				
<5 years		106	37	17	160	4	$\chi^2 = 58.332$ P-value=0.001	S
5-10 years		2	17	13	32			
>10 years		2	0	6	8			
Total		110	54	36	200			

" χ^2 = Chi-square, Df= Degree of freedom, P-value= Probability value, S= significant, NS= non significant, S= significant, HS= high significant"

Findings demonstrated that there is significant association between nurses knowledge related to atrial fibrillation disorder with regard to years of experience in CCU ($p < 0.05$).

Table 4-3-6: Association between Nurses Knowledge and their Training Courses

Training	Rating	Knowledge			Total	d.f	Sig.	
		Poor	Moderate	Good				
No trained		34	9	9	52	4	$\chi^2 = 16.804$ P-value=0.001	S
One sessions		51	30	8	89			
Two and more		25	15	19	59			
Total		110	54	36	200			

" χ^2 = Chi-square, Df= Degree of freedom, P-value= Probability value, S= significant, NS= non significant, S= significant, HS= high significant"

Findings demonstrated that there is significant association between nurses knowledge related to atrial fibrillation disorder with regard to training courses ($p < 0.05$).

Chapter Five

Discussion

Chapter Five

Discussion of the Study Results

This chapter extensively introduces the outcomes of the research in tables and these refer to the objectives of this report, which are as follows:

5.1.Socio-demographic Characteristics of the Study Sample

5.1.1.Nurses Age

Finding of current study show participants age, the mean age is 26, the age 20-29 years old were recorded the highest percentage, followed by those who are age 30-39 years old, followed by those who are age 40-49 years and old, and followed by those who are age ≥ 50 years old (table 4-1). Due to the nature of work, the cardiac care need to be young nurses. As well as, this age group which can provide and perfect nursing intervention efficiently and correctly, since most of the nurses who have many years of service period move away to the primary health sector, the younger nurses could stay in the hospital care.

This findings agreement with findings of KADHIM et al. (2019), who are find that most of nurses work in cardiac care unit were aged 20-29 years and those area need to be young and qualified nurses. Also, these result match with the result of Azer et al. (2011) who find in his study that the majority of the study subjects age were between (18-29) years old. Moreover, Aziz and Lafi (2011) in their study "evaluation of nurses' practices provided to the patients who undergo open heart surgery in Sulaimani center of heart diseases" stated that the majority of the sample age between (25-29) years old.

5.1.2.Nurses Gender

In regard with gender, the male nurses were constituted more than half as compared with those who are female nurses (table 4-1). This result come because that the majority of the nurses they dealing directly with the patients in those selected wards are male because the action with the patients require a high physical activity.

The male nurses in cardiac care unit consistency with Hassan (2012) in his dissertation "Effectiveness of nursing education program on nurses knowledge and Practices toward Arrhythmia in Kirkuk's teaching hospitals" who mentioned that the male is dominant gender of study sample as he explains that males will be needed to work in cardiac units' as they can perform job that needs heavy work.

5.1.3.Nurses Education Level

In regards to the education level, the diploma in nursing were recorded the highest percentage, followed by those who are bachelors nurses, followed by those who are secondary school nursing, and followed by those who are postgraduate (table 4-1). The diploma graduated nurses due to the large number of institutions that graduate such degrees. Also, this result come because of the hospital wards are totally depends on nurses who graduated from nursing institute while nurses who graduated from nursing college are still in small number compared to other nurses .

Many previous studies were in agreement with this result they found that the majority of study subjects in cardiac units are graduate from institute (Diploma) (Hassan & Hassan, 2012; Naseer & Hassan, 2015).

5.1.4.Nurses Experience

In terms of years of experience, nurses expressed less than five years of experience, followed by those who had 5-10 years and followed by those who had more than 10 years (table 4-1).

The few years of experience is due to the fact that they are leaving positions in cardiac care unit to serve as nursing assistants, where they must have the appropriate qualifications to do the job. Alternatively, the fact that nurses rotate from one unit to another within the hospital can account for the few years of nursing experience in those wards. This result is supported by a study done by Hassan (2012), as his results indicated that the higher percentage of study sample are less than 5 years of experience (Hassan & Hassan, 2012).

Years of experience in CCU, it is obvious from findings that the five years of experience were predominated, followed by those who had 5-10 years and followed by those who had more than 10 years (table 4-1). This result agree with another study done by Younis, (2014), who pointed that most of the nurses in their study had (1-4) years of experience in medical and cardiac care unit.

5.1.5.Nurses Training Sessions

Training sessions related findings, the most of nurses participated in one sessions, as compared with those who are more than 2 sessions (table 4-1). his results come along with Hussein and Al-Ganmi (2014) in their study "assessment of nurses' knowledge concerning cardiogenic shock for patients' in cardiac care unit at Baghdad hospitals" they reveals that (8.0%) only were participating in training courses. This is due to the lack of interest in the continuing education units.

5.2. Nurses Knowledge regarding Atrial Fibrillation Disorder

A total of 40 multiple choice questions were used to measure the knowledge of respondents regarding atrial fibrillation and the mean score was 67-80 as a greater level, 54-66 as moderate level and 40-53 as a lower level. In current study findings, the $Mean \pm SD=52.87 \pm 11.900$; and according to the study criteria, the nurses expressed a poor level of knowledge with regards atrial fibrillation disorder (table 4-2-11). From current findings, nurses work in cardiac care unit need to be intensive and continuous training courses because knowledge affects their practices and management of the patient.

The low knowledge regarding atrial fibrillation resulting of many reasons include the degree of education, the better knowledge score among academic nurses than the diploma nurses, the less of employment years and dimensioned of training sessions, in addition the availability of health resources not related to standard global and missing lack of monitoring by health authorities and failure to conduct periodic assessment and examinations related to work duties, all that's lead to decreased level of knowledge .

This findings com consisting with Ferguson et al. (2019), stated that the nurses in different qualification need education program to improve their knowledge and management of patients who admitted in cardiac care unit. Also, findings matched Mahramus et al. (2014), in their study "assessment of an educational intervention on nurses' knowledge and retention of heart failure self-care principles and the teach back method" they concluded their results by emphasizing that there is a deficit knowledge of nurses' about self-management for heart failure prior to participation in the educational intervention.

5.2.1. Nurses Knowledge related to Definition and Causes of Atrial Fibrillation

Findings illustrated that the (56%) of nurses expressed poor level of knowledge related to definition and causes of atrial fibrillation ($M \pm SD=10.90 \pm 2.709$) (table 4-2-1). This findings come in agreement with findings of study conducted in Baghdad Medical City. Exhibited findings that the nurses unsatisfactory knowledge related to atrial definitions and causes because the nurses who work in those halls that receive atrial fibrillation, most of them hold diplomas, and this is the biggest factor affecting their knowledge (Mousa, 2015).

5.2.2. Nurses Knowledge related to Signs, Symptoms and Diagnostic Test for Atrial Fibrillation

Findings illustrated that the (59.7%) of nurses expressed poor level of knowledge related to signs, symptoms and diagnostic test for atrial fibrillation ($M \pm SD=6.72 \pm 2.032$) (table 4-2-4). This findings come consisting with Harkness et al. (2015), who find that the cardiac care unit nurses lack of knowledge about atrial fibrillation due to lack of education training and low level of education. General Knowledge about AF was greater for younger participants ($p < .001$). Participants lacked knowledge and confidence to aid decision-making for treatment-seeking for symptoms of AF and held inaccurate beliefs about AF that could hinder early treatment-seeking. Programs to promote AF awareness should explain the spectrum of symptoms that may be manifested by AF and include action plans for responding to symptoms (McCabe et al., 2017).

5.2.3. Nurses Knowledge related to Risk Factors and Complications for Atrial Fibrillation

Findings illustrated that the (42.5%) of nurses expressed fair knowledge related to risk factors and complications for atrial fibrillation ($M \pm SD=6.78 \pm 2.487$) (table 4-2-6). According to this findings, with the same regards the critical care nurses' knowledge regarding complication of patients with atrial fibrillation was inadequate and recommend to engage nurses in continuing education programs to strengthen their knowledge and Also the study recommends to increase number of nurses with high educational level at critical care units (Mousa, 2015).

5.2.4. Nurses Knowledge related to Treatment of Atrial Fibrillation

Findings illustrated that the (59%) of nurses expressed poor level of knowledge related to treatment of atrial fibrillation ($M \pm SD=11.62 \pm 3.041$) (table 4-2-8). This findings matched with Toscos et al. (2020), who confirmed that the nurses work in cardiac care unit with less years of experience and can't manage the patients with atrial fibrillation and it was up to the physicians. It is better that the diploma nursing need to be complete their academic study and set up in those wards. Mohamed et al. (2017) confirmed that nurses in critical and cardiac care unit need to be maturation and academic qualification.

5.2.5. Nurses Knowledge related to Nursing Intervention for Patients Atrial Fibrillation

Findings illustrated that the (55.5%) of nurses expressed poor level of knowledge related to nursing intervention for patients with atrial fibrillation ($M \pm SD=16.84 \pm 4.043$) (table 4-2-10). Cardiac care nurses working at critical place to provide care for patients with atrial fibrillation. It is completely sure that nurses with high and perfect knowledge regarding

atrial fibrillation will provide excellent management. specifically this group of patients need careful and concise care regarding management, ,like side effects of drugs ,correct dosages regarding medications, performing cardioversion procedure also need skilled knowledge; With respect to nursing management related knowledge domain the present study showed high percentage (0.23%) of studied sample has moderate level while lowest percentage of it has unacceptable level (21.5%) , this finding in disagreement with conclusion obtained from following study which reported that Nurse-led care of patients with AF is superior to usual care provided by a cardiologist in terms of cardiovascular hospitalizations and cardiovascular mortality, Hendriks et al. (2012), stated that nurses have critical role in managing patients with atrial fibrillation so nurses must have excellent level of knowledge to reach for optimal care for atrial fibrillation patients.

In addition, finding in disagreement with American Association of Critical-Care Nurses; the nurses have responsibilities concerning care of patients with atrial fibrillation they should perform assessment of patients for hemodynamic status in addition to they must have information toward devices, medications, and procedures necessary to provide management for them.

Current finding agree with qualitative study done to identify and describe critical care nurses' perception of arrhythmia knowledge. This study revealed a deficit in nurses' ability to recognize and identify specific arrhythmias including tachyarrhythmia (Keller & Raines, 2005), this finding in agreement with study conducted to assess cardiac nurses' knowledge regarding threatening arrhythmia in India on 45 samples where their assessment were fair (Mohan, 2010).

5.3. Association between Nurses Knowledge related to Atrial Fibrillation with regard to their Socio-demographic Information

5.3.1. Nurses Knowledge and their Age

Findings demonstrated that there is no-significant association in nurses knowledge related to atrial fibrillation disorder with regard to age groups ($p=0.520$) (table 4-3-1). The age of nurses ranged from 21 years to more than 50 years (table 4-1-1). The absence of a significant difference in the knowledge of nurses in relation to their ages, this means that knowledge is not affected by different ages, as the younger one carries the same knowledge as the older one.

So the age variable is not important in terms of improving the knowledge of nurses who work in cardiac care units. In these regards, Hendriks et al. (2013), nurses knowledge scale about atrial fibrillation were not influenced by nurses age groups due to the nurses' responses were close to the same degree of knowledge

5.3.2. Nurses Knowledge and their Gender

Findings in table (4-3-2) demonstrated that there significant association between nurses knowledge related to atrial fibrillation disorder with regard to those who are male and female ($p=0.001$). These findings imply that gender plays a role in the knowledge of nurses in the cardiac care wards. Where the significant relationship were in favor of male nurses more than female nurses, meaning that reliance on male nurses in those wards or that consideration should be taken in training of female nurses.

Ferguson et al. (2016), depicted in their findings there were significant differences in knowledge scores between male nurses and female nurses with regards atrial fibrillation. The differences were in favor

of male nurses and it is important to take into account the training of female nurses more than male.

5.3.3.Nurses Knowledge and their Education Level

Findings in table (4-3-3) demonstrated that there is significant association in nurses knowledge related to atrial fibrillation disorder with regard to education level ($p<0.001$). Nurses knowledge significantly increased with high level of education, the Postgraduate and Bachelors graduated were records the increased mean knowledge. On the contrary, the graduates of the diploma and the nursing school recorded a lower level of knowledge.

These relationship in educational levels confirm that relying on nurses who are graduates of nursing colleges (bachelor's) improves the results of knowledge about atrial fibrillation. The Department of Health and decision makers must adopt this. Page et al. (2016), confirmed that the depending on academic nurses in critical care which improve patients care and management. As confirmed by Whelton et al. (2018), critical wards, such as those that receive cardiac and respiratory patients, need qualified nurses. With standard of American Heart Association, and the American, critical care nurses were maturation in academic curriculum (Thomas et al., 2019).

5.3.4.Nurses Knowledge and their Experience

Findings in table (4-3-4) demonstrated that there is significant association in nurses knowledge related to atrial fibrillation disorder with regard to years of experience ($p=0.001$). Years of experience is a very important factor in addition to the educational level. Through the results in the, it confirms that the more years of experience, the higher the average knowledge.

The significant association in years of experience were in favor of the nurses who had more than 10 years of experience, and the nurses who had 5 to 10 years of experience had better knowledge than those who had less than 5 years. Ullah et al. (2021), the poor knowledge were significantly associated with less years of experience. Ali et al. (2015), more years of experience of critical nurses were improve their knowledge and performance.

The nurses' knowledge with regards atrial fibrillation was poor (55%) because of their less experience (53%) had less than 5 years of experience (table 4-1) and (80%) of them had less than 5 years in cardiac care unit. Galvin (2018) confirmed that the years of experience play an important role in the knowledge and practice of critical care wards. Reliance on experienced nurses is important in critical wards such as cardiac care, and testing them periodically is critical (Aliot et al., 2015).

5.3.5. Nurses Knowledge and their Number of Training Sessions

Findings in table (4-3-6) demonstrated that there is a significant association in nurses knowledge related to atrial fibrillation disorder with regard to number of training sessions ($p=0.001$). A forty-four percentage of nurses were attended one sessions of training related to atrial fibrillation (table 4-1).

According to the current results, the more training sessions, the more knowledge. The significant relationship were in favor of those who had more than two training sessions. Clarkesmith et al. (2017), there were significant difference in nurses knowledge with training. The poor of knowledge were associated with no participating in training (Mohan, 2010). Nurses exhibit a poor level of knowledge, and after of application of education training expressed a good level of knowledge (Ferguson et al., 2016). Nurses were knowledgeable in cardiac care unit due to (100%) of them were trained (Eltoom, 2017)

Chapter Six
Conclusions &
Recommendations

Chapter Six

Conclusions and Recommendations

6.1. Conclusion:

During review for results discussion and their interpretations, our study concludes that:

- 6.1.1.** In terms of atrial fibrillation, nurses knowledge as general poor level due to less years of experience and lack of training.
- 6.1.2.** The knowledge about atrial fibrillation influenced by nurses gender (male nurses better than female nurses).
- 6.1.3.** The knowledge about atrial fibrillation affected by nurses educational level (Postgraduate and Bachelors better knowledge that the nurses graduated diploma and below).
- 6.1.4.** Years of experience play an importance roles in nurses knowledge about atrial fibrillation (nurses who had more than 5 years are qualified to work in cardiac care unit).

6.2.Recommendations:

The present study could recommend, based on the above stated conclusion, that:

- 6.2.1.** Specific educational program can be designed and presented to nurses who have minimum level of experience in order to improve their level knowledge toward atrial fibrillation.
- 6.2.2.** Nurses must continually educate themselves to keep up to date on arising situations in health care.
- 6.2.3.** Bachelors nurses graduated need to be set up and rely on experienced nurses in critical care wards.
- 6.2.4.** Testing nurses periodically which indeed to encourages them to retrieve their information.
- 6.2.5.** Further research must be carried out to include the national level and to evaluate nurses practices in management of patients with atrial fibrillation.

References

المصادر العربية:

القران الكريم ، سورة النمل، الآية (15).

References

(A)

- Al-Ganmi, A. H. A. (2014). Assessment of Nurses' Knowledge Concerning Cardiogenic Shock for Patients' in Cardiac Care Unit at Baghdad Hospitals. *kufa Journal for Nursing sciences*, 4(2).
- Al-Ahdal, S. A., & Makki, F. O. (2020). Nurses' Performance Regarding Emergency Management of Arrhythmias Post-Cardiac Surgery at Cardiac Centers, Khartoum, Sudan. *Journal of Complementary Medicine Research*, 11(1), 221-232.
- Ali, N. S., Youssef, W., Mohamed, A., & Hussein, A. (2015). Nurses' knowledge and practice regarding implantable cardiac devices in Egypt. *British Journal of Cardiac Nursing*, 10(1), 34-40.
- Aliot, E., Breithardt, G., Brugada, J., Camm, J., Lip, G. Y., Vardas, P. E., ... & Atrial Fibrillation Awareness And Risk Education (AF AWARE) group [comprising the Atrial Fibrillation Association (AFA), the European Heart Rhythm Association (EHRA), Stroke Alliance for Europe (SAFE), and the World Heart Federation (WHF)]. (2015). An international survey of physician and patient understanding, perception, and attitudes to atrial fibrillation and its contribution to cardiovascular disease morbidity and mortality. *Europace*, 12(5), 626-633.

- American Association of Critical-Care Nurses. (2013). AACN Tele-ICU nursing practice guidelines. *Aliso Viejo, CA: American Association of Critical-Care Nurses.*
- Alkubaisi, M., Shamran, M. H., Al-Obaidi, F., Alsalhi, A., Shdiefat, A., Alajeel, A., & Alchalabi, A. (2020). Atrial Fibrillation among Jordanian Patients. *Indian Journal of Forensic Medicine & Toxicology*, 14(3), 1.
- Andrade, J., Khairy, P., Dobrev, D., & Nattel, S. (2014). The clinical profile and pathophysiology of atrial fibrillation: relationships among clinical features, epidemiology, and mechanisms. *Circulation research*, 114(9), 1453-1468.
- Ang, R., & Earley, M. J. (2016). The role of catheter ablation in the management of atrial fibrillation. *Clinical Medicine*, 16(3), 267.
- Anumonwo, Justus M.B.; Kalifa, Jérôme (2016). Risk Factors and Genetics of Atrial Fibrillation. *Heart Failure Clinics*, 12(2), 157–166
- Azer, S. Z., Eldeen, S. M. A., Abd-Elwahb, M., & Ahmed, A. M. (2011). Impact of educational program among open heart surgery Patients on minimizing the incidence of postoperative infections. *Journal of American Science*, 7(6), 820-834.
- Aziz, S., & Lafi, S. (2011). Evaluation of Nurses' practices provided to the Patients who undergo Open Heart Surgery in Sulaimani center of Heart Diseases (SCHD). *Kufa journal for nursing sciences*, 3(1), 74-80.
- Aziz, K. M., & Ali, S. A. (2020). Determination of the Critical Care Nurses Knowledge Toward Enteral Tube Feeding in AL-Hilla Teaching Hospitals (Interventional study). *Medico Legal Update*, 20(1), 1153-1157.

(B)

- Benha University Hospital Statistical Office (2012). Number of admitted patients to CCU
- Bourke, M. E. (2016). Coronary care unit to cardiac intensive care unit: Acute medical cardiac care—Adapting with the times. *Canadian Journal of Cardiology*, 32(10), 1197-1199.
- Bersohn, M. M. (2017). The expanding role of nurses in electrophysiology practice. *JACC: Clinical Electrophysiology*, 3(12), 1453-1455.
- Berti, D., Hendriks, J. M., Brandes, A., Deaton, C., Crijns, H. J., Camm, A. J., ... & Heidbuchel, H. (2013). A proposal for interdisciplinary, nurse-coordinated atrial fibrillation expert programmes as a way to structure daily practice. *European heart journal*, 34(35), 2725-2730.
- Boriani, G., Valenti, A. C., & Vitolo, M. (2021). Permanent Atrial Fibrillation as the Terminal Stage of a Chronic Disease: Palliative Care Needs to be Considered in Selected Patients with Markedly Impaired Quality of Life. *Cardiology*, 146(3), 397-399.
- Bourke, M. E. (2016). Coronary care unit to cardiac intensive care unit: Acute medical cardiac care—Adapting with the times. *Canadian Journal of Cardiology*, 32(10), 1197-1199.
- Brandes, A., Crijns, H. J., Rienstra, M., Kirchhof, P., Grove, E. L., Pedersen, K. B., & Van Gelder, I. C. (2020). Cardioversion of atrial fibrillation and atrial flutter revisited: current evidence and practical guidance for a common procedure. *EP Europace*, 22(8), 1149-1161.

Burkhardt, J. D., Di Biase, L., & Natale, A. (2012). Long-standing persistent atrial fibrillation: the metastatic cancer of electrophysiology. *Journal of the American College of Cardiology*, 60(19), 1930-1932

(C)

Carlisle, M. A., Fudim, M., DeVore, A. D., & Piccini, J. P. (2019). Heart failure and atrial fibrillation, like fire and fury. *JACC: Heart Failure*, 7(6), 447-456.

Carter, L., Gardner, M., Magee, K., Fearon, A., Morgulis, I., Doucette, S., ... & Parkash, R. (2016). An integrated management approach to atrial fibrillation. *Journal of the American Heart Association*, 5(1), e002950.

Chan, P. H., Wong, C. K., Poh, Y. C., Pun, L., Leung, W. W. C., Wong, Y. F., ... & Siu, C. W. (2016). Diagnostic performance of a smartphone-based photoplethysmographic application for atrial fibrillation screening in a primary care setting. *Journal of the American Heart Association*, 5(7), e003428.

Charitos, E. I., Stierle, U., Ziegler, P. D., Baldewig, M., Robinson, D. R., Sievers, H. H., & Hanke, T. (2012). A comprehensive evaluation of rhythm monitoring strategies for the detection of atrial fibrillation recurrence: insights from 647 continuously monitored patients and implications for monitoring after therapeutic interventions. *Circulation*, 126(7), 806-814.

Chiang, C. E., Naditch-Brûlé, L., Murin, J., Goethals, M., Inoue, H., O'Neill, J., ... & Steg, P. G. (2012). Distribution and risk profile of paroxysmal, persistent, and permanent atrial fibrillation in routine clinical practice: insight from the real-life global survey evaluating patients with atrial fibrillation international registry. *Circulation: Arrhythmia and Electrophysiology*, 5(4), 632-639.

Clarke-Smith, D. E., Pattison, H. M., Khaing, P. H., & Lane, D. A. (2017). Educational and behavioural interventions for anticoagulant therapy in

patients with atrial fibrillation. *Cochrane Database of Systematic Reviews*, (4).

Copley, D. J., & Hill, K. M. (2016). Atrial fibrillation: A review of treatments and current guidelines. *AACN advanced critical care*, 27(1), 120-128.

Cottrell, C. (2012). Atrial fibrillation 2: assessment and diagnosis. *Practice Nursing*, 23(2), 70-77.

Cutugno, C. L. (2015). Atrial fibrillation: updated management guidelines and nursing implications. *American Journal of Nursing*, 115(5), 26-38.

(D)

Dadkhah, S., & Sharain, K. (2016). Symptoms of Atrial Fibrillation. In *Short Stay Management of Atrial Fibrillation* (pp. 51-59). Humana Press, Cham.

Dinh T, Baur LHB, Pisters R, Kamp O, Verheugt FWA, Smeets JLRM et al. Aspirin versus vitamin K antagonist treatment guided by transoesophageal echocardiography in patients with atrial fibrillation: a pilot study. *Heart* 2014;100:563–8

Du, X., Guo, L., Xia, S., Du, J., Anderson, C., Arima, H., ... & Ma, C. (2021). Atrial fibrillation prevalence, awareness and management in a nationwide survey of adults in *China*. *Heart*, 107(7), 535-541.

Dharmaprani, D., Schopp, M., Kuklik, P., Chapman, D., Lahiri, A., Dykes, L., ... & Ganesan, A. N. (2019). Renewal theory as a universal quantitative framework to characterize phase singularity regeneration in mammalian cardiac fibrillation. *Circulation: Arrhythmia and Electrophysiology*, 12(12), e007569.

(E)

Elliott, K. (2018). Diagnosis and management of patients with atrial fibrillation. *Nursing Standard (2014+)*, 33(2), 43.

Eltoom, J. D. M. (2017). *Assessment Of Nurses Knowledge Regarding Care Of Patient With Arrhythmia In Emergency Department and Intensive Care Unit In Military Hospital, Sudan (2017)* (Doctoral dissertation, Sania Ahmed Mohammed Salih).

(F)

Fadalla, M. M. A. (2018). *Impact of an educational program on recognition and management of Ventricular arrhythmias guideline among critical care nurses in Khartoum City, Sudan* (Doctoral dissertation, Elbagir Abdulrahman).

Ferguson, C., & Jackson, D. (2017). Selecting, appraising, recommending and using mobile applications (apps) in nursing. *Journal of Clinical Nursing*.

Ferguson, C., Hickman, L. D., Phillips, J., Newton, P. J., Inglis, S. C., Lam, L., & Bajorek, B. V. (2019). An mHealth intervention to improve nurses' atrial fibrillation and anticoagulation knowledge and practice: the EVICOAG study. *European Journal of Cardiovascular Nursing*, 18(1), 7-15.

Ferguson, C., Inglis, S. C., Newton, P. J., Middleton, S., Macdonald, P. S., & Davidson, P. M. (2016). Education and practice gaps on atrial fibrillation and anticoagulation: a survey of cardiovascular nurses. *BMC medical education*, 16(1), 1-10.

Furniss SS, Sneyd JR. Safe sedation in modern cardiological practice. *Heart* 2015; 101:1526–30.

(G)

- Gallagher, C., Rowett, D., Nyfort-Hansen, K., Simmons, S., Brooks, A. G., Moss, J. R., ... & Sanders, P. (2019). Patient-centered educational resources for atrial fibrillation. *JACC: Clinical Electrophysiology*, 5(10), 1101-1114.
- Galvin, T. (2018). *To explore Nurses' Knowledge of Patient's Stroke Risk in relation to Atrial Fibrillation and Anticoagulation use in Preventing Stroke* (Doctoral dissertation, School of Nursing and Midwifery, National University of Ireland, Galway).
- Gutierrez, C., & Blanchard, D. G. (2011). Atrial Fibrillation: Diagnosis and Treatment. *American Family Physician*, 83(1), 61–68.
- Gutierrez, C., & Blanchard, D. G. (2016). Diagnosis and treatment of atrial fibrillation. *American family physician*, 94(6), 442-452.

(H)

- Hammond-Haley, M., Providencia, R., & Lambiase, P. D. (2018). Temporal pattern/episode duration-based classification of atrial fibrillation as paroxysmal vs. persistent: is it time to develop a more integrated prognostic score to optimize management?. *EP Europace*, 20(FI_3), f288-f298.
- Hannibal, G. B.; Copley, D. J.; Hill, K. M. (2016). Atrial Fibrillation: A Review of Treatments and Current Guidelines. *AACN Advanced Critical Care*, 27(1), 120–128. doi:10.4037/aacnacc2016281
- Harkness, K., Spaling, M. A., Currie, K., Strachan, P. H., & Clark, A. M. (2015). A systematic review of patient heart failure self-care strategies. *Journal of Cardiovascular Nursing*, 30(2), 121-135.
- Hassan, D. A., & Muhbes, F. J. (2020). Assessment of Nurses Knowledge Regarding Prevention and Precautions for Patients with Hepatitis in Diwaniya

- Teaching Hospital. *Indian Journal of Public Health Research & Development*, 11(4), 1966-1970.
- Hassan, S., & Hassan, H. S. (2012). Effectiveness of nursing education program on nurse's knowledge and Practice toward Arrhythmia in Kirkuk's teaching hospitals. *College of Nursing, University of Bagdad*, 152-166.
- Heidbuchel H, Verhamme P, Alings M et al (2017) Updated European Heart Rhythm Association practical guide on the use of non-vitamin K antagonist anticoagulants in patients with non-valvular atrial fibrillation: executive summary. *European Heart Journal*. 38, 27, 2137-2149.
- Healey, J. S., Parkash, R., Pollak, T., Tsang, T., Dorian, P., & CCS Atrial Fibrillation Guidelines Committee. (2011). Canadian Cardiovascular Society atrial fibrillation guidelines 2010: etiology and initial investigations. *Canadian Journal of Cardiology*, 27(1), 31-37.
- Hendriks, J. M., & Heidbüchel, H. (2019). The management of atrial fibrillation: An integrated team approach—insights of the 2016 European Society of Cardiology guidelines for the management of atrial fibrillation for nurses and allied health professionals. *European Journal of Cardiovascular Nursing*, 18(2), 88-95.
- Hendriks, J. M., De Wit, R., Crijns, H. J., Vrijhoef, H. J., Prins, M. H., Pisters, R., ... & Tieleman, R. G. (2012). Nurse-led care vs. usual care for patients with atrial fibrillation: results of a randomized trial of integrated chronic care vs. routine clinical care in ambulatory patients with atrial fibrillation. *European heart journal*, 33(21), 2692-2699.
- Hindricks, G., & Dagres, N. (2016). New strategies to improve rhythm outcome of catheter ablation of persistent and longstanding persistent atrial fibrillation:

hunting rotors and focal sources. *JACC: Clinical Electrophysiology*, 2(6), 679-681.

Huxley, R. R., Alonso, A., Lopez, F. L., Filion, K. B., Agarwal, S. K., Loehr, L. R., ... & Selvin, E. (2012). Type 2 diabetes, glucose homeostasis and incident atrial fibrillation: the Atherosclerosis Risk in Communities study. *Heart*, 98(2), 133-138.

(I)

Ibrahim, R. A., Abd-Allah, K. F., Arafa, O. S., & Mohammed, S. S. (2017). Effect of nursing care standards on nurses' performance in caring for patients with cardiac arrhythmias. *Egyptian Nursing Journal*, 14(3), 251.

Iwasaki, Y. K., Nishida, K., Kato, T., & Nattel, S. (2011). Atrial fibrillation pathophysiology: implications for management. *Circulation*, 124(20), 2264-2274.

(J)

January CT, et al. 2014 AHA/ACC/HRS guideline for the management of patients with atrial fibrillation: a report of the American College of Cardiology/American Heart Association Task Force on practice guidelines and the Heart Rhythm Society *Circulation*. 2014;130(23):e199–e267

(K)

Kadhim, M. H., Ahmed, S. T., & Kadhim, S. (2019). Assessment of Nurses' Knowledge Towards Management of patients with Burn in Duhok City. *Journal of Duhok University*, 22(2), 35-40.

- Keller, K. B., & Raines, D. A. (2005). Arrhythmia knowledge: A qualitative study. *Heart & Lung, 34*(5), 309-316.
- Keller, K., Eggenberger, T., Leavitt, M. A., & Sabatino, D. (2020). Acute care nurses' arrhythmia knowledge: defining competency. *The Journal of Continuing Education in Nursing, 51*(1), 39-45.
- Kirchhof P, Benussi S, Kotecha D, Ahlsson A, Atar D, Casadei B et al. 2016 ESC Guidelines for the management of atrial fibrillation developed in collaboration with EACTS. *Europace 2016;18:1609–78*
- care and stratified therapy. *The Lancet, ()*, S0140673617310723–. doi:10.1016/S0140-6736(17)31072-3
- Kotecha, D., Holmes, J., Krum, H., Altman, D. G., Manzano, L., Cleland, J. G., ... & Flather, M. D. (2014). Efficacy of β blockers in patients with heart failure plus atrial fibrillation: an individual-patient data meta-analysis. *The Lancet, 384*(9961), 2235-2243.
- Krijthe, B. P., Kunst, A., Benjamin, E. J., Lip, G. Y., Franco, O. H., Hofman, A., ... & Heeringa, J. (2013). Projections on the number of individuals with atrial fibrillation in the European Union, from 2000 to 2060. *European heart journal, 34*(35), 2746-2751.

(M)

- Mahramus, T., Penoyer, D. A., Frewin, S., Chamberlain, L., Wilson, D., & Sole, M. L. (2014). Assessment of an educational intervention on nurses' knowledge and retention of heart failure self-care principles and the Teach Back method. *Heart & Lung, 43*(3), 204-212.
- Manolis, A. J., Rosei, E. A., Coca, A., Cifkova, R., Erdine, S. E., Kjeldsen, S., ... & Mancia, G. (2012). Hypertension and atrial fibrillation: diagnostic approach,

prevention and treatment. Position paper of the Working Group ‘Hypertension Arrhythmias and Thrombosis’ of the European Society of Hypertension. *Journal of hypertension*, 30(2), 239-252.

Margulescu, A. D., & Mont, L. (2017). Persistent atrial fibrillation vs paroxysmal atrial fibrillation: differences in management. *Expert review of cardiovascular therapy*, 15(8), 601-618.

McAdams, H. P., Samei, E., Dobbins III, J., Tourassi, G. D., & Ravin, C. E. (2006). Recent advances in chest radiography. *Radiology*, 241(3), 663-683.

McCabe, P. J., Barton, D. L., & DeVon, H. A. (2017). Older adults at risk for atrial fibrillation lack knowledge and confidence to seek treatment for signs and symptoms. *SAGE open nursing*, 3, 23.

McCabe, P. J. (2011). What patients want and need to know about atrial fibrillation. *Journal of multidisciplinary healthcare*, 4, 413.

Mohamed, S., Abdul Razak, T., Hashim, R., & Mohd Ali, Z. (2017). Knowledge of atrial fibrillation and stroke prevention: Development of questionnaire and validation of results. *Journal of Pharmacy Technology*, 33(1), 31-39.

Mohammad, A. M., & Nerway, D. A. R. (2021). Nonadherence to guideline-directed anticoagulations in atrial fibrillation in Iraq. *Medical Journal of Babylon*, 18(2), 121.

Mohan, S. (2010). A study to assess the knowledge regarding interpretation of life threatening arrhythmias and its emergency management among cardiac nurses in SCTIMST, Trivandrum 695 011.

Moote, M., Krsek, C., Kleinpell, R., & Todd, B. (2011). Physician Assistant and Nurse Practitioner Utilization in Academic Medical Centers. *American Journal of Medical Quality*, 26(6), 452-460.

Mousa, M. A. (2015). Critical Care Nurses' Knowledge Regarding Management of Patients with a Trial Fibrillation at Baghdad City. *Journal of Nursing and Health science*, 4, 56-60.

(N)

Naseer, A., & Hassan, H. (2015). Effectiveness of Educational Program on Nurses' Practices toward Cardiac Rehabilitation for Patients with Heart Attack. *kufa Journal for Nursing sciences*, 5(1), 1-7.

Nattel, S., & Dobrev, D. (2017). Controversies about atrial fibrillation mechanisms: aiming for order in chaos and whether it matters. *Circulation Research*, 120(9), 1396-1398.

Nuotio, I., Hartikainen, J. E., Grönberg, T., Biancari, F., & Airaksinen, K. J. (2014). Time to cardioversion for acute atrial fibrillation and thromboembolic complications. *Jama*, 312(6), 647-649.

Nesheiwat, Z., Goyal, A., Jagtap, M., & Shamma, A. (2021). Atrial Fibrillation (Nursing). In StatPearls [Internet]. StatPearls Publishing.

(P)

Page, R. L., Joglar, J. A., Caldwell, M. A., Calkins, H., Conti, J. B., Deal, B. J., ... & Al-Khatib, S. M. (2016). 2015 ACC/AHA/HRS guideline for the management of adult patients with supraventricular tachycardia: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Rhythm Society. *Journal of the American College of Cardiology*, 67(13), e27-e115.

Perkins, D. N. (2013). *Knowledge as design*. Routledge.

- Patrick, C. (2018). AFib (Atrial Fibrillation) Causes, Symptoms, Diagnosis, Treatment. EMedicine Health.
- Perez, M. V., Wang, P. J., Larson, J. C., Soliman, E. Z., Limacher, M., Rodriguez, B., ... & Stefanick, M. L. (2013). Risk factors for atrial fibrillation and their population burden in postmenopausal women: the Women's Health Initiative Observational Study. *Heart*, 99(16), 1173-1178.
- Petrénas, A., & Marozas, V. (2018). *Atrial fibrillation from an engineering perspective* (pp. 137-220). L. Sörnmo (Ed.). Berlin: Springer.
- Pfister, R., Brägelmann, J., Michels, G., Wareham, N. J., Luben, R., & Khaw, K. T. (2015). Performance of the CHARGE-AF risk model for incident atrial fibrillation in the EPIC Norfolk cohort. *European journal of preventive cardiology*, 22(7), 932-939.
- Pluymaekers, N. A., Dudink, E. A., Luermans, J. G., Meeder, J. G., Lenderink, T., Widdershoven, J., ... & Crijns, H. J. (2019). Early or delayed cardioversion in recent-onset atrial fibrillation. *New England Journal of Medicine*, 380(16), 1499-1508.
- Prystowsky, E. N., & Padanilam, B. J. (2015). Treatment of atrial fibrillation: A weighty problem. *Journal of the American College of Cardiology*, 65(20), 2170-2172.
- Pellman, J., & Sheikh, F. (2015). Atrial fibrillation: mechanisms, therapeutics, and future directions. *Comprehensive Physiology*, 5(2), 649.

(Q)

- Quah, J. X., Dharmapran, D., Lahiri, A., Tiver, K., & Ganesan, A. N. (2021). Reconceptualising atrial fibrillation using renewal theory: a novel approach to

the assessment of atrial fibrillation dynamics. *Arrhythmia & Electrophysiology Review*, 10(2), 77.

(R)

Ruhwanya, D. I., Tarimo, E. A., & Ndile, M. (2018). Life threatening arrhythmias: Knowledge and skills among nurses working in critical care settings at Muhimbili National Hospital, Dar es Salaam, Tanzania. *Tanzania Journal of Health Research*, 20(2).

Reiffel, J. A. (2014). Atrial fibrillation and stroke: epidemiology. *The American journal of medicine*, 127(4), e15-e16.

(S)

Salih, S. A. M. (2013). *Impact of A proposed Educational Program for Nurses about Nursing Care of Patients with Coronary Artery Diseases At Elmek Nimir University Hospital* (Doctoral dissertation).

Schnabel, R. B., Yin, X., Gona, P., Larson, M. G., Beiser, A., McManus, D. D., & Newton-Cheh, C. (2015). A Lubitz, S.; Magnani, JW; Ellinor, P.; et al. Fifty-year trends in atrial fibrillation prevalence, incidence, risk factors, and mortality in the community. *Lancet*, 386, 154-162.

Smit, Marcelle D.; Moes, Marjolein L.; Maass, Alexander H.; Achekar, Ismaël D.; Van Geel, Peter P.; Hillege, Hans L.; van Veldhuisen, Dirk J.; Van Gelder, Isabelle C. (2012). The importance of whether atrial fibrillation or heart failure develops first. *European Journal of Heart Failure*, 14(9), 1030–1040.

(T)

Thabet, E. M., Helmy, H. A., Abdelaziz, M. A., & Khalf, G. S. (2019). Assessment of Nurses' knowledge And Practices Regarding Temporary Pacemaker patients care. *Assiut Scientific Nursing Journal*, 7(19), 9-16.

- Thomas, R. J., Beatty, A. L., Beckie, T. M., Brewer, L. C., Brown, T. M., Forman, D. E., ... & Whooley, M. A. (2019). Home-based cardiac rehabilitation: a scientific statement from the American Association of Cardiovascular and Pulmonary Rehabilitation, the American Heart Association, and the American College of Cardiology. *Circulation*, *140*(1), e69-e89.
- Toscos, T. R., Coupe, A., Wagner, S., Drouin, M., Roebuck, A. E., Daley, C. N., ... & Mirro, M. J. (2020). Can nurses help improve self-care of patients living with atrial fibrillation? A focus group study exploring patients' disease knowledge gaps. *Nursing Open*, *7*(4), 998-1010.
- Thanavaro, J. L. (2019). Catheter ablation for atrial fibrillation. *The Journal for Nurse Practitioners*, *15*(1), 19-25.

(U)

- Ullah, A., Junaid, S. M., Rahim, A., Khan, S. Z., & Orakzai, S. (2021). Knowledge of Nurses Regarding Assessment of Life Threatening Arrhythmias. *Journal of Farkhanda Institute of Nursing And Public Health (JFINPH)*, *1*(2), 15-19.

(W)

- Whelton, P. K., Carey, R. M., Aronow, W. S., Casey, D. E., Collins, K. J., Dennison Himmelfarb, C., ... & Wright, J. T. (2018). 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA guideline for the prevention, detection, evaluation, and management of high blood pressure in adults: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *Journal of the American College of Cardiology*, *71*(19), e127-e248.
- Whitbeck, M. G., Charnigo, R. J., Khairy, P., Ziada, K., Bailey, A. L., Zegarra, M. M., ... & Elayi, C. S. (2013). Increased mortality among patients taking

digoxin—analysis from the AFFIRM study. *European heart journal*, 34(20), 1481-1488.

Wijtvliet, E. P., Tieleman, R. G., van Gelder, I. C., Pluymaekers, N. A., Rienstra, M., Folkeringa, R. J., ... & RACE 4 Investigators. (2020). Nurse-led vs. usual-care for atrial fibrillation. *European heart journal*, 41(5), 634-641.

World Health Organization. (2014). Global status report on noncommunicable diseases 2014 (No. WHO/NMH/NVI/15.1). World Health Organization.

Wyse, D. G., Van Gelder, I. C., Ellinor, P. T., Go, A. S., Kalman, J. M., Narayan, S. M., Nattel, S., Schotten, U., & Rienstra, M. (2014). Lone Atrial Fibrillation. *Journal of the American College of Cardiology*, 63(17), 1715–1723.

(X)

Xu, J., Luc, J. G., & Phan, K. (2016). Atrial fibrillation: review of current treatment strategies. *Journal of thoracic disease*, 8(9), E886.

(Y)

Young, Monique (2019). Atrial Fibrillation. *Critical Care Nursing Clinics of North America*, 31(1), 77–90.

Younis, Y. (2014). Nurse's knowledge about modifiable and non-modifiable risk factors of heart failure patient in Erbil teaching hospitals. *Hawler Medical University-Nursing College*, 3-7.

Yang, E., Ipek, E. G., Balouch, M., Mints, Y., Chrispin, J., Marine, J. E., ... & Spragg, D. D. (2017). Factors impacting complication rates for catheter ablation of atrial fibrillation from 2003 to 2015. *EP Europace*, 19(2), 241-249.

(Z)

Zathar, Z., Karunatileke, A., Fawzy, A. M., & Lip, G. Y. (2019). Atrial fibrillation in older people: concepts and controversies. *Frontiers in medicine*, 175.

Zoni-Berisso, M., Lercari, F., Carazza, T., & Domenicucci, S. (2014). Epidemiology of atrial fibrillation: European perspective. *Clinical epidemiology*, 6, 213.

Appendices

Administrative Arrangements

University of Babylon
College of Nursing
Research Ethics Committee



جامعة بابل
كلية التمريض
لجنة أخلاقيات البحث العلمي

Issue No:

Date: / /2021

Approval Letter

To,
Shahad Eesa Mousa

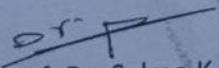
The Research Ethics committee at the University of Babylon, College of Nursing has reviewed and discussed your application to conduct the research study entitled " Assessment of Nurses' Knowledge Toward Atrial Fibrillation Disorder in Cardiac Care Units at Teaching Hospitals in Babylon Governorate "

The Following documents have been reviewed and approved:

1. Research protocol
2. Research instrument/s
3. Participant informed consent

Committee Decision:

The committee approves the study to be conducted in the presented form. The Research Ethics committee expects to be informed about any changes occurring during the study, any revision in the protocol and participant informed consent.


Prof. Dr. Salma K. Jehad
Chair Committee
College of Nursing
Research Ethical Committee
18/01/2022

BABYLON - FACULTY OF NURSING

السيد معاوني العلمي المحترم

السيد رئيس ترميض البالغين المحترم

اللجنة العلمية والأخلاقيات المحترمون

م | اخلاقيات البحث

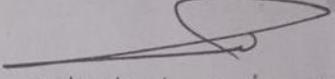
يرجى التفضل بالموافقة على عرض موضوع (الماجستير) على اللجنة العلمية واخلاقيات البحث العلمي عن موضوع رسالتي الموسومة باللغة العربية

تقييم معارف الممرضين تجاه اضطراب الرجفان الأذيني في وحدات العناية القلبية في المستشفيات التعليمية في محافظة
بابل

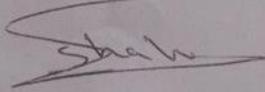
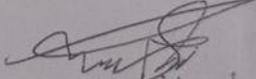
واللغة الإنكليزية ..

**Assessment of Nurses' Knowledge Toward Atrial Fibrillation Disorder in
Cardiac Care Units at Teaching Hospitals in Babylon Governorate**

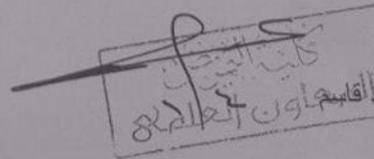
مع التقدير


اسم المشرف وتوقيعه : أ.م. د. حسام عباس داوود

اسم الطالب وتوقيعه: شهد عيسى موسى بحر



رئيس الفرع وتوقيعه : أ.م. د شدى سعدي محمد

المعاون العلمي


م. د نهاد محمد قاسبي

لاحظتة: ترفق جميع الاستمارات الخاصة بلجنة اخلاقيات البحث مع الطلب. (Ethical form 1, Ethical form2, Ethical Form3)

Ministry of Higher Education and Scientific Research
 جامعة البصرة
 جامعة بابل
 كلية التمريض
 لجنة الدراسات العليا

University of Babylon
 College of Nursing

UNIVERSITY OF BABYLON

Ref. No. :
 Date: / /

٥٦٤
 ٢٠٢٢ / ١ / ٢١

الى / دائرة صحة بابل/ مركز التدريب والتطوير
 م/ تسهيل مهمة

تحية طيبة :
 يطيب لنا حسن التواصل معكم ويرجى تفضلكم بتسهيل مهمة طالبة الماجستير
 (شهد عيسى موسى) لغرض جمع عينة دراسة الماجستير والخاصة بالبحث
 الموسوم :
 تقييم معارف الممرضين تجاه اضطراب الرجفان الاذيني في وحدات العناية القلبية في المستشفيات التعليمية في محافظة
 بابل .
 Assessment of Nurses' Knowledge toward Atrial Fibrillation Disorder in Cardiac Care
 Units at Teaching Hospitals in Babylon Governorate.
 مع الاحترام ...

المرفقات //
 • بروتوكول.
 • استبانة.

ا.م. د. نهاد محمد قاسم الدوري
 معاون العميد للشؤون العلمية والدراسات العليا
 ٢٠٢٢ / ١ / ٢١

صورة عنه الى //
 • مكتب السيد العميد للتفضل بالاطلاع مع الاحترام
 • لجنة الدراسات العليا
 • الصادرة

<p>Ministry of Health Babylon Health Directorate Imam Sadiq General Hospital</p>	<p>جمهورية العراق وزارة الصحة العراقية Iraq Ministry of Health Founded 1959</p>	<p>وزارة الصحة دائرة صحة بابل مستشفى الامام الصادق (ع) شعبة الموارد المالية والادارية وحدة الموارد البشرية العدد: التاريخ: 2022/ ٩ / ٨</p>
<p>إلى / دائرة صحة محافظة بابل / المدير العام/مركز التدريب والتنمية البشرية/وحدة ادارة البحوث م / تسهيل مهمة</p>		
<p>تحية طيبة اشارة الى كتابكم ذي العدد ١٢٥ في ٢٠٢٢/٢/١ لا مانع لدينا من تسهيل مهمة الطالبة (شهد عيسى موسى) لإتمام بحثها في مستشفانا قدر تعلق الامر بنا وحسب الضوابط على أن لا تتحمل مستشفانا أي تبعات مالية أو قانونية. للتفضل بالاطلاع مع الاحترام</p>		
<p>الدكتور ماجد ياس خضير الشمري مدير مستشفى الإمام الصادق (ع) التعليمي</p>		
<p>نسخة منه الى • مكتب مدير المستشفى • وحدة التدريب والبحوث • القسرة. CCU</p>		

Iraqi Ministry of Health Babylon Provincial Health Directorate Shaheed Al Mihrab Center For Cath. & Cardiac Surgery	جمهورية العراق  الجمهورية العراقية	وزارة الصحة دائرة صحة محافظة بابل مركز شهيد المحراب لامراض وجراحة القلب ادارة الموارد البشرية العدد : ٤٠٣ التاريخ : ٢٠٢٢/٢/٩
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الى/ دائرة صحة بابل/ مكتب المدير العام/ مركز التدريب والتنمية البشرية/ وحدة
البحوث

م/ تسهيل مهمة

اشارة الى كتابكم ذي العدد (١٢٥ في ٢٠٢٢/٢/١).
 نود اعلامكم ان لا مانع لدينا من تسهيل مهمة الطالبة (شهد عيسى موسى)
 لاتمام بحثها في مركزنا قدر تعليق الامر بنا وحسب الضوابط على ان لا
 يتحمل مركزنا اي تبعات مالية او قانونية.

للتفضل بالاطلاع مع الاحترام

الطالبة (شهد عيسى موسى)

الدكتورة

فاصل الحمزة

مدير مركز شهيد المحراب لامراض وجراحة القلب

رئيس مجلس ادارة

٢٠٢٢/٢/٩

دائرة صحة محافظة بابل

مركز شهيد المحراب لامراض وجراحة القلب

العدد/ التاريخ

الصادر

نسخه منه الى:

- مكتب المدير
- ادارة الموارد البشرية
- وحدة التدريب والبحوث
- الملف / ض. خ

مركز شهيد المحراب للحفظه وجراحة القلب (SMCFCCS) Shaheed AL Mihrab Center for Cath. & Cardiac Surgery
 شارع ١٠٩، شباط ٢٠٢٢

<p>جمهورية العراق</p> <p>Ministry Of Health Babylon Health Directorate Email:- Babel_Healthmoh@yahoo.com Tel:282628 or 282621</p>		<p>وزارة الصحة والبيئة دائرة صحة محافظة بابل المدير العام مركز التدريب والتنمية البشرية لجنة البحوث</p>
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استمارة رقم :- ٢٠٢١/٠٣

رقم القرار :- ١٩
تاريخ القرار :- ٢٠٢٢/٠١/٢٤

وزارة الصحة
دائرة صحة بابل
مركز التدريب والتنمية البشرية
لجنة البحوث

قرار لجنة البحوث

تحية طيبة ...

درست لجنة البحوث في دائرة صحة بابل مشروع البحث ذي الرقم (٢٠٢٢/٠٢٤ / بابل) المعنون (تقييم معارف الممرضين تجاه اضطراب الرجفان الاذيني في وحدات العناية القلبية في المستشفيات التعليمية في محافظة بابل) والمقدم من الباحثة (شهد عيسى موسى) إلى وحدة إدارة البحوث والمعرفي مركز التدريب والتنمية البشرية في دائرة صحة بابل بتاريخ ٢٠٢٢/٢/٩ وقررت :

قبول مشروع البحث أعلاه كونه مستوفيا للمعايير المعتمدة في وزارة الصحة والخاصة بتنفيذ البحوث ولا مانع من تنفيذه في مؤسسات الدائرة .

مع الاحترام

الدكتور / محمد عبد الله عجرش
رئيس لجنة البحوث
٢٠٢٢ / /

نسخة منه إلى :
● مكتب المدير العام / مركز التدريب والتنمية البشرية / وحدة إدارة البحوث ... مع الأوليات.

سوزان

دائرة صحة محافظة بابل / مركز التدريب والتنمية البشرية // ايميل المركز babiltraining@gmail.com

Dear Nurse: Questionnaire subject full strict to confidential and therefore canmake you think frankly with appreciation ..

Part I: Demographic and social data

Please mark (√) in front of the appropriate answer

1. Age years

2. Gender :

Male

Female

3. Educational status :

Secondary school of nursing

Diploma of nursing

Bachelors of nursing

Master and above of nursing

4. Employment characteristics :

5. Years of experience in nursing

6. Years of experience in cardiac care unit

7. Number of training sessions

Part II: Knowledge of Nurses about atrial fibrillation:**First- Definition and causes atrial fibrillation**

Read the following sentences carefully and put circle about appropriate answer :

1-Which of the following is the definition Atrial fibrillation ?

- a) An electric disorder in the atria of the heart which result in heartcontracting fasting and irregularly
- b) Is a fast ,abnormal heart rate start in lower chamber of the heart(ventricular)
- c) Medical term for stroke

2- Which of the following are a types for atrial fibrillation ?

- a) Paroxysmal ,persistent ,long term persistent
- b) Sinus node dysfunction
- c) Heart block

3- Which of the following is a Paroxysmal atrial fibrillation?

- a) Sudden episode of a disease or symptoms .occur intermittently
- b) Continual and last for more than 7 days
- c) Refers to atrial fibrillation that has lasted for more

than 1 years4-What happens within the heart during atrial fibrillation ?

- a) Electrical current stop
- b) Electrical current slowdown
- c) Electrical current irregular

and rapid

5-What is common type

arrhythmia ?

- a) Atrial fibrillation
- b) Brady arrhythmias
- c) Ventricular fibrillation

6- Which of the following is a common cause of atrial fibrillation?

- a) Coronary artery disease ,congenital heart diseases
- b) Peripheral vascular diseases
- c) Genetic

7- The following are medical conditions that is associated with atrial fibrillation

, EXEPT :

- a) Lung cancer ,carbon monoxide poisoning
- b) Over active thyroid gland ,pneumonia
- c) Muscular system disease

8- What is triggers factors for atrial fibrillation?

- a) Alcohol ,smoking
- b) Loud sound
- c) Allergy to grass

Second –Signs ,symptoms and diagnostic test for atrial fibrillation :

1- Which of these is not a symptoms of atrial fibrillation?

- a) Hypertension, Palpitation
- b) Breathlessness ,chest pain.
- c) Hypotension

2- Which of the following is useful diagnostic method for diagnosis of atrialfibrillation ?

- a) Chest x-ray.
- b) Electrocardiography.

- c) Medical family history.
- 3- Which of the following is characteristics electrocardiography (ECG) inpatient with atrial fibrillation?
- a) Absence "p" wave.
 - b) Atrial rate 100-120b/m.
 - c) QRS" wave regular.
- 4- Normal heart beats from ___ to ___ time per minute are :
- a) 100-150
 - b) 60-100
 - c) 50-60
- 5- Which of the following is not diagnostic test for atrial fibrillation :
- a) EKG, Holter monitor
 - b) MRI
 - c) Echocardiogram
- 6- How is action of a holter device?
- a) Will record the cardiac rhythm for 24 hours or a longer duration .
 - b) Cardiac ultrasound of the heart.
 - c) Use of focused beams radiation.

Third- Risk factors and complications for atrial fibrillation :

- 1- Which of the following non-modifiable risk factors for atrial fibrillation?
- a) Excessive alcohol intake ,smoking .
 - b) Hypertension ,sleep apnea .
 - c) Age.
- 2- Which of the following modifiable risk factors for atrial fibrillation?
- a) Obesity.
 - b) Family history of AF.
 - c) Gender .

3-Who are the people most at risk of developing atrial fibrillation ?

- a) Age over 60 year
- b) Age 45-50 year
- c) Age 35-45 year

4- Which of the following is not Serious complications for atrial fibrillation?

- a) Stroke.
- b) Infection.
- c) Heart failure .

Fourth- Treatment for atrial fibrillation:

1- Which of the following is antiarrhythmic medications that is help return the heart to its normal sinus rhythm ?

- a) Amiodarone (cordarone), propafenone (rhythmol)
- b) Heparin
- c) Warfarin (coumadine)

2-Which of the following is action the anticoagulant medications to AF patients?

- a) Reduce the risk of blood clot .
- b) Used to help slow the heart rate.
- c) Maintain normal sinus rhythm .

3-Treatment AF patients depending on the condition of the patient, which of the following is methods treatments atrial fibrillation ?

- a) Drugs therapy, cardioversion , devices therapy.
- b) Angioplasty .
- c) Life style change.

4-When caring for a patient with atrial fibrillation who has a prescription for metoprolol .what should the nurse watch when giving this medication ?

- a) Heart rate
- b) Troponin
- c) S-t segment

5-Which of the following information would cause the nurse to withhold digoxin from the patient with AF?

- a) The digoxin level is 2.8 mg/dl.
- b) The patient has sinus tachycardia.
- c) The cardiac monitor show AF with heart rate of 98.

6-Which of the following is Serious side effects to the digoxin medication?

- a) Diarrhea
- b) Skin rash ,trouble breathing
- c) Headache

7-Which of the following involves giving the heart a controlled electric shock to restore a normal rhythm ?.

- a) Pacemaker
- b) Cardio version
- c) Catheter ablation

8-Which of the following are a types cardioversion ?

- a) Electrical ,chemical
- b) Permanent
- c) Temporary

9-Which intervention should the nurse implement when defibrillating (D.C shock)a patient who is in atrial fibrillation ?

- a) Shout "all clear "prior to defibrillating the patient .
- b) Don't remove the oxygen source during defibrillation .
- c) Defibrillate the client at 50,100 joules.

Five : Knowledge of the nurses toward nursing intervention for patients ofatrial fibrillation :

1-What is the immediate management when patient admitted in cardiac careunit?

- a) Obtain lead 12 ECG.
- b) Check vital signs.
- c) Assessment for signs of ineffective tissue perfusion.

2-What are common nursing diagnosis for patient with atrial fibrillation ?

- a) Risk for decreased cardiac output.
- b) Risk for injury .
- c) Risk for imbalanced body temperature.

3-Which of the following is a nurse role for the patient with atrial fibrillation isambulating and suddenly says "I feel really dizzy" ?

- a) Help patient sit down
- b) Check apical pulse
- c) Assess blood pressure

4-The patient in complete heart block .which intervention should the nurseimplement first ?

- a) Administer atropine ,anti dysrrhythmic .
- b) Obtain electrocardiogram(ECG).
- c) Prepare to insert pacemaker.

5-What should the nurse watch first when evaluating the response of a patientwith atrial fibrillation to cardioversion ?

- a) Check blood pressure .
- b) Status airway .
- c) Level of consciousness .

6-Which of the following is a nurse role pre-procedure pacemaker?

- a) Explain procedure to the patient and purpose from this

procedure ,obtaining patient consent and signature .

- b) Check body temperature.
- c) Give medication.

7- Which of the following is a nurse role during procedure pacemaker?

- a) Sterilize site for insertion ,ECG monitoring , nurse plays crucial role inset up of equipment for pacemaker procedure .
- b) Anesthesia injection.
- c) Programing device .

8-Which of the following is role nurse in educate the patient after dischargefrom hospital after pacemaker surgery ?

- a) Don't move the arm on the pacemaker side above shoulder level for afew weeks.
- b) You can take a shower.
- c) You can drive immediately after leaving the hospital.

9- Which of the following Teaching self-care about nutrition to patient withatrial fibrillation ?

- a) Eat healthy diet that rich in fresh fruits and vegetables.
- b) Increase in saturated and trans fats.
- c) Increase salts.

10-Which of the following is health education for atrial fibrillation patientsabout exercises?

- a) Moderate to lower intensity activities like walking and swimming.
- b) High intensity exercise like running.
- c) Don't exercise .

11- Which of the following is important of follow up atrial fibrillation patients?

- a) Assessing and treating patients.
- b) Monitoring stress.

c) Educating patients and their families.

12- The patient with chronic atrial fibrillation, what is the role of the nurse in educating the patient during his discharge from the hospital?

a) Discuss the importance of getting a monthly partial thromboplastin time.

b) Instruct the patient use soft bristle tooth brush.

c) Teach the patient procedure for synchronized cardioversion.

13- These of following is a health education about preventing complications of atrial fibrillation ,except :

a) Keep BP in healthy range ,don't smoke .

b) Control blood sugar, maintain healthy weight .

c) High in saturated fats .

عزيمي الممرض/ة:

موضوع الاستبيان سري للغاية وبالتالي يمكن أن يجعلك تفكر بصراحة مع التقدير ..

الجزء الاول: البيانات الديموغرافية والاجتماعية

يرجى وضع علامة (√) أمام الإجابة المناسبة

1-العمر سنة

2-الجنس

ذكر انثى

3- المستوى التعليمي:

خريج إعدادية تمرير

خريج معهد تمرير

خريج بكالوريوس تمرير

ماجستير فما فوق

4-خصائص الوظيفة :

سنة

سنوات الخبرة في مجال التمريض

سنة

سنوات الخبرة في وحدة العناية بالقلب

عدد الدورات التدريبية

الجزء الثاني: معرفة الممرضين حول الرجفان الأذيني:

اولا- تعريف واسباب الرجفان الاذيني

اقرأ الجمل التالية بعناية وضع دائرة حول الإجابة المناسبة:

1- أي مما يلي هو تعريف الرجفان الأذيني؟

- أ- اضطراب كهربائي في الاذنين من القلب ينتج عنه انقباض القلب وعدم انتظامه.
- ب- هو معدل ضربات قلب سريع وغير طبيعي يبدأ في الحجرة السفلية للقلب (البطين).
- ج- المصطلح الطبي للسكتة الدماغية

2- أي مما يلي يعتبر من أنواع الرجفان الأذيني؟

- أ- انتيابي (نوبه)، مستمر ، طويل الأمد
- ب- ضعف العقدة الجيبية

ج - الاحصار القلبي (heart block)

3- أي مما يلي هو الرجفان الأذيني الانتيابي(النوبة)؟

- أ- نوبة مفاجئة من مرض أو أعراض تحدث بشكل متقطع
- ب- مستمر ويستمر لأكثر من 7 أيام
- ج- يشير إلى الرجفان الأذيني الذي استمر لأكثر من سنة

4-ماذا يحدث للقلب أثناء الرجفان الأذيني؟

- أ- توقف التيار الكهربائي
- ب- تباطؤ التيار الكهربائي
- ج- التيار الكهربائي غير المنتظم والسريع

5- ما هو النوع الشائع من عدم انتظام ضربات القلب؟

- أ-الرجفان الاذيني
- ب- اضطراب النظم البطيني
- ج- الرجفان البطيني

6- أي مما يلي سبب شائع للرجفان الأذيني؟

- أ- أمراض الشرايين التاجية ، أمراض القلب الخلقية
- ب- أمراض الأوعية الدموية الطرفية
- ج- وراثي

7- فيما يلي بعض الحالات الطبية المصاحبة للرجفان الأذيني ماعدا:

- أ-سرطان الرئة والتسمم بأول أكسيد الكربون

ب- زيادة نشاط الغدة الدرقية والالتهاب الرئوي

ج- امراض الجهاز العضلي

8- ما هي العوامل المسببة للرجفان الأذيني؟

أ- الكحول والتدخين

ب- صوت عالي

ج- حساسية من العشب

ثانياً - العلامات والأعراض والاختبار التشخيصي للرجفان الأذيني

1- أي من هذه الأعراض لا يعتبر من أعراض الرجفان الأذيني؟

أ- ارتفاع ضغط الدم ، خفقان القلب

ب- ضيق التنفس وألم في الصدر.

ج- انخفاض ضغط الدم

2- أي مما يلي يعتبر طريقة تشخيص مستخدمة لتشخيص الرجفان الأذيني؟

أ- أشعة الصدر.

ب- تخطيط القلب.

ج- تاريخ العائلة الطبي

3- أي مما يلي هو خصائص تخطيط كهربية القلب (ECG) لمريض الرجفان الأذيني؟

أ- غياب موجة "p"

ب- معدل الأذنين 100-120 نبضه/دقيقه

ج- موجة "QRS" منتظمة

4- ضربات القلب الطبيعية من ____ إلى ____ مرة في الدقيقة

أ- 100-150

ب- 60-100

ج- 50-60

5- أي مما يلي لا يعد اختباراً تشخيصياً للرجفان الأذيني؟

أ- رسم القلب ، جهاز هولتر

ب- تصوير بالرنين المغناطيسي

ج- مخطط صدى القلب (الايكو)

6- كيف يعمل جهاز هولتر؟

أ- يسجل إيقاع القلب لمدة 24 ساعة أو لمدة أطول

ب- الموجات فوق الصوتية للقلب

ج- استخدام الأشعة المركزة.

ثالثاً- عوامل الخطر ومضاعفات الرجفان الأذيني

1- أي من عوامل الخطر التالية غير القابلة للتعديل للرجفان الأذيني؟

أ- الإفراط في تناول الكحوليات والتدخين.

ب- ارتفاع ضغط الدم وتوقف التنفس أثناء النوم.

ج- العمر

2- أي من عوامل الخطر التالية القابلة للتعديل للرجفان الأذيني؟

أ- السمنة

ب- تاريخ العائلة للرجفان الأذيني

ج- الجنس

3- من هم الأشخاص الأكثر عرضة للإصابة بالرجفان الأذيني؟

أ- العمر فوق 60 سنة

ب- العمر 45-50 سنة

ج- العمر 35-45 سنة

4- أي مما يلي لا يعتبر من المضاعفات الخطيرة للرجفان الأذيني؟

أ- السكتة الدماغية.

ب- العدوى.

ج- فشل القلب.

رابعاً - علاج الرجفان الأذيني

1- أي من الأدوية التالية هي الأدوية المضادة لاضطراب النظم التي تساعد على إعادة القلب إلى

إيقاع نظمه الطبيعي؟

أ- أميودارون (كوردارون) ، بروبافينون (ريثمول)

ب- الهيبارين

ج- الوارفارين (الكومادين)

2- أي من التالي هو عمل الأدوية المضادة للتخثر لمرضى الرجفان الأذيني؟

أ- تقليل مخاطر تجلط الدم.

ب- يستخدم للمساعدة في إبطاء معدل ضربات القلب.

ج- الحفاظ على إيقاع النظم الطبيعي.

- 3- علاج مرضى الرجفان الأذيني حسب حالة المريض ، أي من الطرق التالية تُعالج الرجفان الأذيني؟
- أ-العلاج الدوائي وتقويم نظم القلب والعلاج بالأجهزة.
- ب-القسطرة
- ج- تغيير نمط الحياة
- 4- عند رعاية مريض مصاب بالرجفان الأذيني ولديه وصفة طبية لدواء الميتابرولول ، ما الذي يجب على الممرض مراقبته عند إعطاء هذا الدواء؟
- أ-معدل ضربات القلب
- ب-تروبونين
- ج-جزء S-T في تخطيط القلب
- 5- أي من المعلومات التالية من شأنها أن تجعل الممرض يحجب دواء الديجوكسين عن المريض المصاب بالرجفان الأذيني؟
- أ- مستوى الديجوكسين هو 2.8 مجم / ديسيلتر.
- ب-المريض لديه تسارع القلب الجيبي (sinus tachycardia)
- ج- يظهر جهاز مراقبة القلب رجفان أذيني مع معدل ضربات قلب يبلغ 98.
- 6- أي مما يلي يعتبر من الآثار الجانبية الخطيرة لدواء الديجوكسين؟
- أ- الإسهال
- ب- طفح جلدي ، صعوبة في التنفس
- ج- الصداع
- 7- أي مما يلي يتضمن إعطاء القلب صدمة كهربائية مضبوطة لاستعادة نظمه الطبيعي؟
- أ- جهاز تنظيم ضربات القلب
- ب- تقويم نظم القلب (صدمة D.C)
- ج-الاستئصال بالقسطرة
- 8- أي مما يلي يعتبر من انواع تقويم منظم القلب؟
- 1-الكهربائية والكيميائية
- 2-دائم
- 3-مؤقت
- 9-ما هو التدخل الذي يجب على الممرض تنفيذه عند إزالة الرجفان (صدمة D.C) لمريض في الرجفان الأذيني؟
- أ- اصرخ "كل شيء واضح" قبل إزالة رجفان المريض.

ب- لا تقم بإزالة مصدر الأكسجين أثناء عملية إزالة الرجفان.

ج- جهاز إزالة رجفان القلب عند 50،100 جول.

خامسا : معرفة الممرضين تجاه التدخل التمريضي لمرضى الرجفان الأذيني:

1- ما هو التدخل الفوري عند دخول المريض المصاب بالرجفان الأذيني إلى وحدة العناية القلبية؟

أ- الحصول ع مخطط القلب

ب- فحص العلامات الحيوية

ج- تقييم علامات عدم فعالية نضح الأنسجة

2- ما هي التشخيصات التمريضية الشائعة لمرضى الرجفان الأذيني؟

أ- خطر انخفاض النتاج القلبي

ب- خطر الاصابة

ج- خطر حدوث خلل في درجة حرارة الجسم

3- أي مما يلي هو دور الممرض للمريض المصاب بالرجفان الأذيني وهو متنقل ويقول فجأة " أشعر

بدوار حقيقي"؟

أ- مساعدة المريض على الجلوس

ب- فحص النبض القمي (apical pulse)

ج- قياس ضغط الدم

4- المريض المصاب بانحصار القلب الكامل. ما التدخل الذي يجب على الممرض تنفيذه أولاً؟

أ- اعطاء الأتروبين ، وهو مضاد لاضطراب النظم.

ب- الحصول على مخطط كهربية القلب (ECG).

ج- التحضير لإدخال جهاز تنظيم ضربات القلب.

5- ما الذي يجب على الممرض مراقبته أولاً عند تقييم استجابة مريض الرجفان الأذيني لتقويم نظم

القلب؟

أ- فحص ضغط الدم.

ب- حالة مجرى الهواء.

ج- مستوى الوعي.

6- أي مما يلي هو دور الممرض قبل اجراء عمليه وضع جهاز منظم القلب؟

أ- شرح الإجراء للمريض والغرض من هذا الإجراء ، والحصول على موافقة المريض والتوقيع

ب- فحص درجة حرارة الجسم

ج- اعطاء الدواء

- 7- أي مما يلي هو دور الممرض أثناء إجراء عملية وضع جهاز تنظيم ضربات القلب؟
- أ- تعقيم موقع الإدخال ، ومراقبة تخطيط القلب ، تلعب الممرضة دورًا مهمًا في إعداد المعدات لإجراء جهاز تنظيم ضربات القلب.
- ب- حقن التخدير.
- ج- برمجة الجهاز.
- 8- أي من الآتي دور الممرض في توعية المريض بعد خروجه من المستشفى بعد إجراء عملية وضع جهاز تنظيم ضربات القلب؟
- أ- لا تحرك الذراع في جانب جهاز تنظيم ضربات القلب فوق مستوى الكتف لبضعة أسابيع.
- ب- يمكنك الاستحمام بعد مغادرة المستشفى
- ج- يمكنك القيادة مباشرة بعد مغادرة المستشفى
- 9- أي مما يلي تعليم الرعاية الذاتية حول التغذية لمريض الرجفان الأذيني؟
- أ- اتباع نظام غذائي صحي غني بالفواكه والخضروات الطازجة.
- ب- زيادة الدهون المشبعة والمتحولة.
- ج- زيادة الأملاح.
- 10- أي مما يلي هو التثقيف الصحي لمريض الرجفان الأذيني عن ممارسة التمارين؟
- أ- الأنشطة المعتدلة إلى المنخفضة الشدة مثل المشي والسباحة.
- ب- تمارين عالية الشدة مثل الجري.
- ج- لا تمارس التمارين الرياضية.
- 11- أي مما يلي مهم لمتابعة مريض الرجفان الأذيني؟
- أ- تقييم وعلاج المرضى.
- ب- مراقبة الإجهاد.
- ج- توعية المرضى وذويهم.
- 12- المريض المصاب بالرجفان الأذيني المزمن ، ما هو دور الممرض في تثقيف المريض اثناء خروجه من المستشفى ؟
- أ- مناقشة أهمية الحصول على وقت الثرومبولاستين الجزئي شهريًا.
- ب- اطلب من المريض استخدام فرشاة أسنان ذات شعيرات ناعمة.
- ج- تعليم المريض إجراءات تقويم نظم القلب المتزامن.
- 13- فيما يلي تثقيف صحي حول الوقاية من مضاعفات الرجفان الأذيني ، باستثناء:
- أ- حافظ على ضغط الدم في نطاق صحي ، لا تدخن.

ب- ضبط سكر الدم والمحافظة على وزن صحي.

ج- نسبة عالية من الدهون المشبعة.

خبراء تحكيم استمارة الاستبانة

ت	اسم الخبير	اللقب العلمي	الاختصاص	مكان العمل	سنوات الخبرة
1	د. راجحة عبد الحسن	استاذ	تمريض البالغين	كلية التمريض/ جامعة الكوفة	37 سنة
2	د. هدى باقر حسن	أستاذ	تمريض البالغين	كلية التمريض/ جامعة بغداد	35 سنة
3	د. صباح عباس احمد	استاذ	تمريض البالغين	كلية التمريض/ جامعة بغداد	34 سنة
4	د. سحر ادهم علي	أستاذ	تمريض البالغين	كلية التمريض/ جامعة بابل	27 سنة
5	د. خالدة محمد خضر	استاذ	تمريض البالغين	كلية التمريض/ جامعة بغداد	20 سنة
6	د. شذى سعدي محمد	استاذ	تمريض البالغين	كلية التمريض /جامعة بابل	23 سنة
7	د. حسين هادي عطية	استاذ	تمريض البالغين	كلية التمريض/ جامعة بغداد	18 سنة
8	د. تحسين رجب محمد	أستاذ مساعد	تمريض البالغين	كلية التمريض/ جامعة بغداد	22 سنة
9	د. حسن عبدالله عذبي	أستاذ مساعد	تمريض البالغين	كلية التمريض/ جامعة كربلاء	19 سنة
10	د. صادق عبدالحسين حسن	أستاذ مساعد	تمريض البالغين	كلية التمريض/ جامعة بغداد	12 سنة
11	د. فاطمة مكي محمود	استاذ مساعد	تمريض البالغين	كلية التمريض جامعة كربلاء	27 سنة
12	د. ضياء كريم عبد علي	استاذ مساعد	تمريض بالغين	كلية التمريض جامعة العميد	15 سنة
13	د. رجا ابراهيم عبد	استاذ مساعد	تمريض البالغين	كلية التمريض جامعة بغداد	25 سنة
14	د. علي كاظم راضي	استشاري قلبية	اختصاص دقيق امراض القلب	مستشفى الامام الصادق (ع)	15 سنة
15	د. محمد عبد الواحد عباس	استشاري قلبيه	اختصاص دقيق امراض القلب	مستشفى الامام الصادق (ع)	7 سنة
16	د.حسن علي	استشاري قلبيه	اختصاص دقيق امراض القلب	مستشفى الامام الصادق (ع)	11 سنة

Ministry of Higher Education and Scientific Research
جامعة بابل / وزارة التعليم العالي والبحث العلمي
University of Babylon
كلية التربية للعلوم الانسانية
College of Education for Human Sciences

العدد: ٢٠١٤ / ٦ / ٦
التاريخ: ٢٠١٤ / ٦ / ٦

Ref. No :
Date: / /

جامعة بابل / كلية التمريض
السوارة
العدد / ٥ / ١٤٤
التاريخ ٢٠١٤ / ٦ / ٦

جامعة بابل
الدراسات العليا
كلية التربية للعلوم الانسانية

مكتب السيد معاون العميد للشؤون العلمية المحترم
م / إعادة رسالة

تحية طيبة:

نعيد إليكم رسالة طالبة الدراسات العليا / الماجستير (شهد عيسى موسى) بعد تقويمها لغوياً من قبل (أ.م.د. لحاظ عبد الامير) من قسم اللغة الانكليزية في كليتنا، وقد ثبتت الملاحظات على متن الرسالة يرجى من الباحثة الالتزام بها.

*** مع الاحترام ***

جامعة بابل
الدراسات العليا
معاون العميد للشؤون العلمية
والدراسات العليا

٢٦

نسخة منه الى //
- الدراسات العليا
- الصادرة

//سارة //

المستخلص

الرجفان الأذيني هو عدم انتظام ضربات القلب، وغالبًا ما يكون سريعًا جدًا ويمكن أن يؤدي إلى تجلط الدم ويزيد من خطر الإصابة بالسكتة الدماغية وفشل القلب والمضاعفات الأخرى المرتبطة بالقلب. تعتبر معارف الممرضين بإدارة المرضى أمرًا بالغ الأهمية في أجنحة رعاية القلب.

الغرض من هذه الدراسة هو تقييم معارف الممرضين تجاه اضطراب الرجفان الأذيني وتحديد الاختلافات في المعارف فيما يتعلق في المتغيرات الاجتماعية و الديموغرافية.

دراسة وصفية أجريت بواسطة عينة ملائمة مكونة من 200 ممرضا اختيرت باستخدام نهج أخذ العينات الغير الاحتمالي. تم التحقق من مصداقية الاستبيان من خلال دراسة تجريبية ومن ثم عرضها على الخبراء لإثبات موثوقيتها. كان العدد الإجمالي للفقرات المدرجة في الاستبيان 40 فقرة للتحقيق في المعارف حول الرجفان الأذيني. جمعت البيانات باستخدام أسلوب التدوين الذاتي وحلت بتطبيق المنهج الإحصائي الوصفي والاستنتاجي.

أشارت نتائج الدراسة إلى أن (55%) من الممرضين أظهروا مستوى ضعيفًا من المعارف المتعلقة بالرجفان الأذيني. كان هناك فروق ذات دلالة إحصائية في معارف الممرضين وأجناسهم ($p=0.000$)، والمستوى التعليمي ($p=0.000$) ، وسنوات الخبرة ($p=0.000$) وعدد الدورات التدريبية ($p=0.028$).

الممرضين الذين لديهم أكثر من 5 سنوات من الخبرة والمدرسين مؤهلين للعمل في وحدات رعاية القلب. المزيد من سنوات الخبرة وتدريب الممرضين من خلال تنفيذ دورات تثقيفية دورية تساعد بالفعل في تنمية معارفهم. يجب أن يكون برنامجًا تعليميًا يتم تقديمه للممرضين يساهم بتحسين مستوى معارفهم تجاه الرجفان الأذيني ويتم تشجيعهم عن طريق الاختبار بشكل دوري لاسترداد معلوماتهم.



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وزارة التعليم العالي والبحث
العلمي
جامعة بابل
كلية التمريض

تقييم معارف الممرضين تجاه اضطراب الرجفان الأذيني

في وحدات العناية القلبية في المستشفيات التعليمية في

محافظة بابل

رسالة مقدمة من

شهد عيسى موسى

الى

مجلس كلية التمريض جامعة بابل

جزء من متطلبات نيل درجة الماجستير في علوم التمريض

بإشراف

أ.م.د. حسام عباس داود

محرم/ ١٤٤٤ هجرية

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