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Central Technical University
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Department of Community Health
Technologies – Evening



Assessment of Quality of Life in People with Heart Failure
Admitted to Educational Hospitals in Al kut city, Wasit

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

(قَالَ لَهُ مُوسَى هَلْ أَتَّبِعُكَ عَلَىٰ أَنْ تُعَلِّمَنِي مِمَّا عَلَّمْتَ رُشْدًا).

"سورة الكهف، آية: 66".

صدق الله العلي العظيم



الاهداء

إلى من أفضّلها على نفسي، ولمّ لا؛ فلقد ضحّت من أجلي ولم تدّخر جهدًا في سبيل
إسعادي
على الدّوام

(أمّي الحبيبة)

صاحب نسلكه مسلك كل في أذهاننا على يُسيطر من ويبقى الحياة، دروب في نسير
الوجه
الطيب، والأفعال الحسنة فلم يبخل عليّ طيلة حياته

(والدي العزيز)

إلى عائلتي، أصدقائي، كل من يمتلك مكانا خاصا في قلبي وجميع من وقفوا
بجواني وساعدوني بكل ما يملكون وفي أصعدة كثيرة

اهدي هذا البحث المتواضع مع جزيل الشكر والمحبة...



الشكر والتقدير

بداية الشكر لله عز وجل الذي أعاننا وشد من
عزمنا لإكمال هذا البحث، ونشكره راکعين،
الذي وهبنا الصبر والمطاوله والتحدى والحب
لنجعل من هذا المشروع علما ينتفع به.

قال رسول الله - صلى الله عليه واله وسلم " من لم يشكر الناس
لن يشكر الله "

نتقدم بأجمل عبارات الشكر والإمتنان من قلوب فائضة بالمحبة
والإحترام والتقدير له، ونقدم أزكى تحياتنا وأجملها وأثناءها
نرسلها بكل الود والحب والإخلاص

شاكرين لك كل ما قدمته وما نصحت لنا به في إشرافك على هذا
البحث، فلك مئا كل الشكر والامتنان

أ.م هاني حبيب

ونتقدم بجزيل الشكر والعرفان إلى جميع أعضاء هيئة
التدريس بالمعهد.



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Chapter one

introduction

1-1-introduction

Heart failure is a condition that occurs when the heart cannot pump blood as well as it should; this leads to inadequate blood flow to vital organs such as the kidneys and congestion (buildup of fluid) in other vital organs such as the lungs. The term heart failure is misleading because the heart does not completely fail or stop beating. In some cases, heart failure can be mild and cause minor symptoms that are only evident with physical activity. Other times it can be severe (causing symptoms at rest) or even life-threatening. The most common symptoms of heart failure are shortness of breath, fatigue, leg swelling, and other signs of fluid retention.(1)

The prevalence and incidence of heart failure increases sharply with age. Its incidence is about 1% at the age of 50 years, but at the age of 80 years and older, approximately one in 10 people will suffer from heart failure. Until recently, the goals of treating heart failure were to relieve symptoms and enhance functional capacity. Recently, some large-scale studies have shown that ACE inhibitors can reduce mortality, prevent the development of heart failure, avoid the need for hospitalization and improve prognosis. Therefore, ACE inhibitors may have promising effects on patients and society.(3)

Heart failure syndrome was first described as an emerging epidemic about 25 years ago. Today, due to a growing and aging population, the total number of heart failure patients is still rising. However, the combination of heart failure cases appears to be growing. Incidence rates have stabilized and may be decreasing in some populations, but worrying adverse trends have been observed in relatively young people, possibly linked to increasing obesity. In addition, a clear transition toward heart failure with preserved ejection fraction occurred. These findings, along with the observation that the death rate from heart failure is declining less rapidly than previously, suggest that we have not reached the end of the epidemic yet. In this review, the evolving epidemiology of heart failure is put into perspective, highlighting key trends and anticipating future trends.(4)

Skeletal muscle changes Skeletal muscle is abnormal in congestive heart failure in several ways. There is poor gross function, significant wasting, poor internal blood flow, and limited ability to accept blood flow. This restriction can be seen independently of decreased blood flow, and intrinsic metabolic function is abnormal..(5)

Renal dysfunction is common in patients with heart failure and is associated with high morbidity and mortality. Cardiac and renal dysfunction may be exacerbated by multiple mechanisms such as fluid overload, increased venous pressure, ischemia, neurohormonal activation, inflammation, and concomitant therapy. The interplay between cardiac and renal dysfunction may be critical for disease progression and prognosis.(6)

Research Specific Objectives :

- 1.To determine the Physical functioning (PF) in people with heart failure .
- 2.To determine general health (GH) in people with heart failure .
3. To determine the role physical (RP) in people with heart failure.

Chapter two

literature review

2-1- Definition of heart failure

Heart failure, or congestive heart failure, is a condition in which the heart cannot supply the body's tissues with enough blood. The result is a series of changes that lead to extreme fatigue, shortness of breath, and ultimately, death. In the past quarter century, significant progress has been made in understanding the molecular and cellular processes that contribute to heart failure, leading to the development of effective treatments. Despite this, chronic heart failure remains a major cause of morbidity and death. Because this condition becomes more common with age, the number of affected individuals is rising as the world's population ages rapidly. New therapies that target disease mechanisms at the cellular and whole-organ levels are needed to halt and reverse the devastating consequences of this disease.(7)

Heart failure is a clinical syndrome that results when the heart is unable to provide adequate blood flow to meet metabolic demands or accommodate systemic venous return. This common condition affects more than 5 million people in the United States at a cost of \$10 to \$38 billion annually. Heart failure results from injury to the heart muscle due to a variety of causes including ischemic heart disease, high blood pressure, and diabetes. Less common etiologies include cardiomyopathy, valvular disease, myocarditis, infections, and systemic toxicities.(8)

2-2-Causes of heart failure

The term ‘heart failure’ describes a situation in which a person's heart cannot pump enough blood around the body but does nothing to explain why this condition arises. The clinical picture is complex because there are many possible causes of heart failure, and some are illnesses in their own right (Figure 1). Many cases of heart failure can be regarded as the end stage of other underlying illnesses and could be prevented if patients with these illnesses were identified and treated appropriately at an earlier stage(10)

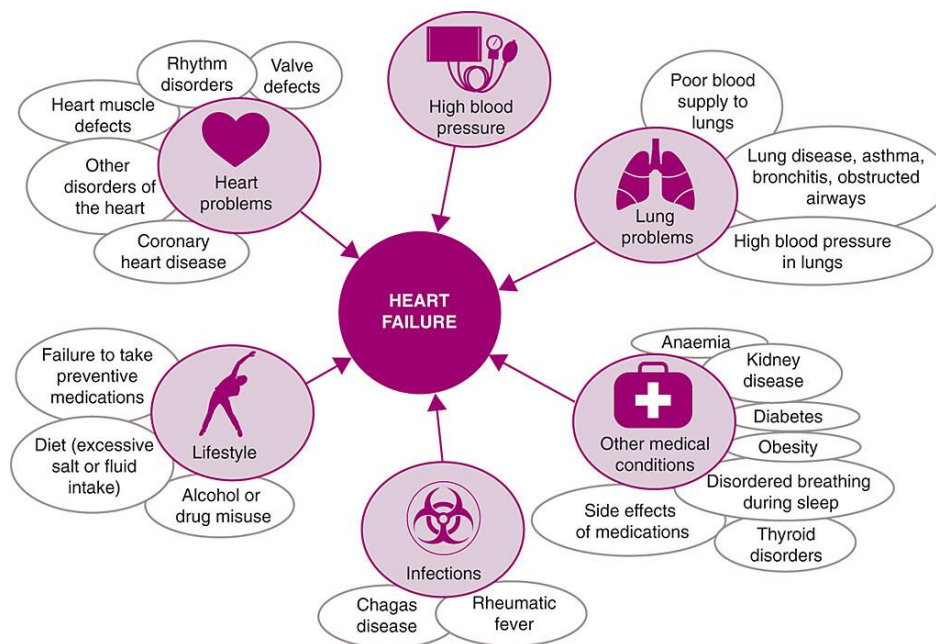


Figure 1

2-3- Signs and symptoms of heart failure

Basic signs and symptoms of HF (rest dyspnea, exertional dyspnea, paroxysmal nocturnal dyspnea, orthostatic dyspnea, fatigue, edema, jugular vein distension, murmurs, and third heart sound) (11)

2-4-Diagnosis of heart failure

Blood tests exist that are useful for ruling out a diagnosis of heart failure, but they cannot positively identify patients who do have heart failure(12)

Diagnosis therefore remains complex and relies on the clinical judgment of an experienced healthcare professional (Section on The Need to Apply Best Practice). A new specific and sensitive blood test could make diagnosis of heart failure quicker, easier and more accurate. A suitable blood test could also enable large numbers of people to be screened for early signs of heart failure (Section on Preventing Heart Failure in High-risk Groups). Continued support is necessary for basic scientific research aimed at discovering the molecular signatures in the blood of different types of heart failure .In the future, statistical methods known as risk stratification could be used to identify patients who need treatment most urgently(13)

2-5- Heart failure medication

Heart failure with reduced ejection fraction (HFrEF) requires multimodal therapy with a combination of several drugs as the foundation to improve symptoms and prognosis in all patients .Pharmacological treatments such as angiotensin-converting enzyme (ACE) inhibitors, angiotensin/ neprilysin receptor antagonists (ARNIs; sacubitril/valsartan), beta-blockers, have shown a very significant and clinically relevant reduction in mortality and hospitalization for heart failure, and improved quality of life when added to current standard medications. In patients with HFrEF. Importantly, outcomes were improved to a similar extent in patients with and without diabetes.(14)

Patients with acute heart failure experience a rapid worsening of symptoms, which often leads to emergency hospitalization. Therapies for acute heart failure have generally changed little over the past two decades, despite ongoing research.(15)

options are limited to drugs that relieve breathlessness and reduce fluid build-up by increasing urine production or dilating blood vessels. Drugs that act directly on the heart muscle to increase the force of contractions can have adverse effects and are used only in critically ill patients when the oxygen supply to vital organs is dangerously low. None of these medications does anything to address the underlying cause or causes of heart failure, leaving patients at a high risk of death after discharge from a hospital. Despite the difficulties of conducting clinical

research in an emergency setting, governments and industry should continue to support development of new medicines for treating acute heart failure.(16)

Chapter three

Research Method

1. Introduction

This chapter presents the research methodology of the study that was used in gathering data and analysis relevant to the research. The methodology will include the research design, the participants, environment, sampling and sample size, type of data, the data collection method, instrument used and the data gathering procedure.

1. Research method:

It was performed on a suitability sample of 150 patients with heart failure at hospitals in AlKut city, Iraq. HF patients were of ages between 35 to 60 years old. Ethical approval from health department in the mentioned governorates. Written informed consent was obtained from all participants after explaining the data collection method and study purpose.

2. Research Sample:

The study sample will consist of patients with heart failure who are hospitalized at ALKarama and Zahra educational hospitals, and met the inclusion criteria

3. Characteristics of the research sample:

:In this study, the sampling method was selected through the

:Inclusion criteria

.HF patients between ages 35 and 60 years old -

Participants who don't have cognitive functioning and able to -
.communicate, read and understand Arabic language

.Not pregnant or lactating mothers -

- Patients providing complete information during completion of the questionnaire.

4. Easy example about instrument

1. Compared to one year ago, how would you rate your health in general now?
 - 1 - Much better now than one year ago
 - 2 - Somewhat better now than one year ago
 - 3 - About the same
 - 4 - Somewhat worse now than one year ago

نفسق: اليسار لليمين، بلا تعداد نقطى أو رقمى،
مات الجدولة: ليس عند 5.0"

↓

The following items are about activities you might do during a typical day.
Does your health now limit you in these activities? If so, how much?

		Yes, limited a lot	Yes, limited a little	No, not limited a t all
2	Strong activities, such as running, lifting heavy objects, participating in strenuous sports	○ 1	○ 2	○ 3
3	Moderate activities, such as moving a table, pushing a vacuum cleaner,, or playing golf	○ 1	○ 2	○ 3
4	Lifting or carrying groceries	○ 1	○ 2	○ 3
5	Climbing several flights of stairs	○ 1	○ 2	○ 3
6	Climbing one flight of stairs	○ 1	○ 2	○ 3
7	Bending, kneeling, or stooping	○ 1	○ 2	○ 3
8	Walking more than a mile	○ 1	○ 2	○ 3
9	Walking several blocks	○ 1	○ 2	○ 3
1	Walking one block	○ 1	○ 2	○ 3
1	Bathing or dressing yourself	○ 1	○ 2	○ 3

Chapter four

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