To enhance the quality of life of elderly people with chronic heart failure. The nursing interventions.

Literature review

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Abstract:

Chronic heart failure has a negative effect on the quality of life of elderly people especially those are 65 years old or more. **The purpose**: of this study is to explore how dose chronic heart failure affect the elderly's quality of life and in which dimensions, also how nursing care can enhance the quality of life. **Research questions**:

1) What is the effect of chronic heart failure on the quality of life of elderly people?

2) What are the nursing interventions to enhance the quality of life of people suffering of chronic heart failure?

Research theory: Register theory "Generative Quality of Life for the Elderly". that base on the idea of "connectedness ". The elderly people generate quality of life as they experience connectedness with six correlated forces and processes which are the act of being such as metaphysically connected, spiritually connected, biologically connected, socially connected and environmentally connected. **Methods:** literature review of academic databases and reviewing 12 articles using qualitative research method was done. Data analysis was conducted using content analysis inductive approach. **Finding**: this study adds supporting evidence to the existing knowledge of enhancing and improving the quality of life for this group of patient suffering of CHF is based on providing total nursing care management including all aspects of patient's life. Introduction of cardiac rehabilitation program such Tia Chi, dancing, regular exercise that may help in improving the physical performance and the functionality of CHF patients is fundamental. Also. the need of psychological support such face to face interview and telephone counseling may help to reduce depression, anxiety and maintain mental health well-being intact for elderly with CHF. Spiritually need to be evaluated and individual care to be introduced based on the elderly people personal preferences and needs. Finally, communication as part of the total care may elevate the level of care and improve patients and heath care professional interaction to achieve maximum care. Therfore, open discussion about the nursing care plan should be started as early as chronic heart failure is diagnosed to ensure that end –of –life care is mentioned and patient choices are considered.

Keywords:	Quality of life, Chronic heart failure ,Eldely, Register theory, Nursing interventions
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Table of Contents

Table of Figures

FOREWORD

First of all, I would like to thank ALLAH the greatest and the graceful for all the blesses it has given to me and to my family. Studying in Arcada University of Applied science was as a bless and wonderful opportunity that bolstered my academic life.

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Thirdly, I would like to thank a great people I met here in Finland and I call them "My second family" My sister in-low and her family. Uncle Mohammed Ahmed, my sister in-low Amina Mahmoud Abdirahman and their lovely children Dr. Yousef, Dr. Siham, Dr. Samsam, Yahya, Sundus, Yoonis and Yacoob. Thank you all for being my support team and my best friends forever.

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1 INTRODUCTION

Chronic heart failure (CHF) is one of the greatest challenges that confronting the global health care system in twenty-first -century (Nolte and Mckee, 2008). Due to modernization of life style, the greater longevity, and advances in healthcare interventions people life has been prolonged while controlling their conditions, also has led to increase the burden of chronic disease facing health systems. Chronic conditions such as chronic heart diseases are a major cause of death and account for one half of world diseases burden causing a negative impact on people quality of life (Nicholson 2014). At the same time the aging population is becoming a worldwide phenomenon with increasing social and economic stressors about health care and needs of the people. With aging and long life expectancy elderly are expected to live with at least one chronic condition during their latter part of life. Chronic conditions such CHF are not curable rather they are life time concerns, whereas the need for modification in lifestyle to control symptoms and potentially life-threatening outcomes is crucial matter. Quality of life of, psychological status, mental health and the functional status of the elderly have been affected negatively by the chronic heart failure illness and its manifestations. Fotos et al., (2013).

Therefore, quality of life assessment has become a main focus to the health care professionals and nursing care providers since last two decades. In elderly people aged 65 year or older, quality of life concept has been used to evaluate the effectiveness of the treatments, reliability of data information in order to allocate health care services and resources, also for making health care decisions based on the individual health needs of the elderly Foreman and Kleinpell, (1990).

Consequently, it is an important task to shed light and gain further knowledge about how elderly people experience CHF in their lives, in order to optimize the quality of life for this older population with chronic suffering. Quality status has become a basic health professionals concern to ensure that elderly people experience meaning in life, not just longer years to live (Bulter, 2012).

The interest for this study paper was generated from my personal background as critical care nurse. In addition to sharing common interest with the city of Lovisa as commissioner to provide research project with evidence base knowledge that may enhance the

care and the quality of life of elderly people suffering from chronic heart failure. Aging and heart failure are common among the Finnish society and the need for nursing care interventions tailored for elderly with chronic heart failure is persistent.

2 BACKGROUND

2.1 Chronic heart failure

2.1.1 Facts about chronic heart failure

Chronic heart failure (CHF) is defined as “a complex clinical syndrome that can result from any structural or functional cardiac disorder that impairs the ability of the ventricle to fill or eject blood" (Roger, 2013). Chronic heart failure is a particular disease of the elderly and generally is diagnosed by the way symptoms and physical findings are presented. Patients with CHF experience suboptimal outcomes with only 50% of the people surviving past five years after diagnosis. As the CHF prevalence is rising, patient’s quality of life remains poor (Butler, 2012).

Many definitions of CHF exist, but the most recent definitions have emphasized the fact of the presence of symptoms of heart failure and physical signs of fluids retention. However, diagnosis of heart failure in older patients is often delay due to the atypical of presentation of symptoms and clinical findings (Daamen et al., 2009). Accurate diagnosis and an etiology of CHF is even more difficult and hampered by many concomitant co-mortalities that increase with old age. The common concomitant diseases are hypertension, diabetes, stroke, obstructive lung disease. These diseases show characteristic similar to those of CHF (e.g breathlessness, fatigue, ankle swelling) that may be difficult to interpret. Therefore, early diagnosis and treatment especially in elderly may prevent progression of heart failure and lead to improvement of symptoms and quality of life (Daamen et al., 2009).

Nowadays, chronic heart failure is taking a lead with global prevalence, it has tripled over the last two decades affecting millions of people. CHF is clinical syndrome characterized by disability and life- threatening exacerbation and it has been called “the final common pathway" of all cardiovascular diseases. The incidence of CHF is sharply increasing with advance age particularly people over the age 65 years in many western societies due to aging and the advanced health care (Daamen et al., 2009; Bytyçia and Bajraktari, 2015).

In Finland cardiovascular disease are the main cause of death among Finns. In year 2013 every fifth Finns and over 10.000 persona died of chronic heart failure, as chronic heart failure is known to be the final common path for all ischemic heart diseases Statistics Finland (2014).

2.1.2 Causes and clinical manifestation of chronic heart failure

Several pathological conditions may contribute to chronic heart failure some are reversible causes and some are non-reversible causes. (Butler, 2012). Majority of heart failure patients presented with history of ischemic heart diseases, hypertension and arrhythmias. Life style factors such as excessive smoking and alcohol intake may also increase the risk for heart failure (Butler, 2012). The main potential causes of chronic heart failure are ischemic heart diseases, arrhythmias, alcohol induced cardiomyopathy and metabolic disorders. A list of more potential causes is presented in (Appendix table 1).

Kearney (2008) discussed that old age patients often present with CHF in atypical ways and may be obscured by pre-existing factors or co-morbidities. In younger adult's orthopnea, exertional dyspnea and lower extremity swelling are common symptoms. However, many older age patients refer the same symptoms such dyspnea and fatigue to aging process and often avoid sleeping upright positions or in their chair which might result in sleep disturbance and insomnia. Another symptoms and clinical presentation are confusion, irritability, somnolence, anorexia, oliguria, chest infection and diminished physical activities. According to Mello and Ashcraft, (2014) Chronic heart failure is chronic illness that has one of the greatest impacts on elderly life. Patients with CHF are often express that they would trade one half of their remaining life for any improvement in their quality of life. Such dispirit comments may show how poor is the quality of life in patients suffering from CHF. Depression and aggressive care in later stages of CHF has always been associated with decreased quality of life.

2.1.3 The nursing management in chronic heart failure

Nursing management chronic heart failure in older age patients is mainly base on self-education for the patients and care givers in order to able address individual's adaptation to the condition, warning signs and what to do in acute situations (Nicholson,

2014). Examples for nursing education is teaching heart failure patients about the side effects of their diuretic medications or giving them monitoring parameters for rapid assessment for any increase of weight that may show a signs and symptoms of fluid retention. Lifestyle modification is important because changing in certain behaviours in the way people live can affect the heart to function either efficiently or in-efficiently. For example, excess alcohol causes dilated cardiomyopathy and arrhythmias. In smokers, the risk of ischemia increase immediately after the release of nicotine in the blood causing contraction of the arteries. Obesity and sedentary life style increase cardiac demands and adversely affects the resting heart rate (Nicholson, 2014).

After self-education comes the medication therapy to manage chronic heart failure, and it is mainly divided in to several classes of drugs. Each group or class of the medications treat different symptom or treat the effect of contributing factors that cause chronic heart failure. Medication therapy of CHF is significantly affect patient's mortality, morbidity, symptoms and hospitalization. A list of the medication therapy, their effects and their different classes are presented in (appendix table 2). The advance treatment or surgical interventions to treat chronic heart failure is the cardiac resynchronization therapy (CRT-P). The devices are a third wire paces at the left ventricle and co-ordinate the cardiac stimulation and might improve heart rate and patient's quality of life significantly. But unfortunately one quarter of the patients who seem suitable to this treatment do not response. Finally, surgical intervention such replacing the heart (Cardiac Transplant), is not common and this options is very much limited for elderly patients, the reason that they do not usually meet the transplant criteria, also the availability of heart donor is limited (Nicholson, 2014).

End - stage of chronic heart failure is considering one of the largest effect on quality of life of any advance disease. Chronically ill patients with CHF have identified their top - priority needs from the health care system as: *" need for adequate pain and symptom relief, avoidance of inappropriate prolongation of dying, achievement of sense of control, relief of the burden on others and a strengthening of relationships with loved ones*." (Adler et al, 2009).

2.2 Finland and challenges of aging nation

Aging is a broad concept and it is not one process, but it is a many processes that include physical changes, psychological changes, social psychological changes and social changes. These changes are taking place in our bodies over adult life, in our minds and our mental capacities, changes in what we think and believe and also how we are viewed, what we can expect and what is expected of us Atchley and Barusch (2004). In Finland aging has interesting story to tell. Statistics Finland (2014) outlined that nearly every fifth Finn is aged 65 years or over. Finland has the fastest ageing society and it's seen as a front runner in the European Union as far as new ageing policies are concerned. It is the only EU member State which applied an integrated policy concerning the ageing population and it is the only country in EU where age discrimination in working life is prohibited (Kunz, 2007).

Finland is facing a huge challenge due to their ageing nation. This demographic change of aging population has caused an increase to the cost of health care services at the institutional care centres. If compared to the comprehensive home care, institutional or residential care centres are considered less effective and costly. Therefore, the focus of care for elderly people has shifted from residential care towards home care to enable older people to live at home as they are provided with a home care services carried by health professionals and based on elderly personal needs. Also to improve their living at home and to enhance their quality of life in general (Turjamaa et al., 2014).

Globally, the worldwide life expectancy of older people is rising and by 2050 the number of people aged 60 years and older of world's population is expected to reach up to 2 billion total. However, living longer does not necessarily means living healthier than before. Therefore, the global burden of death and illness is remarkable in this age group of 60 years and above. Attribute of long -term conditions such as heart diseases, cancer and chronic respiratory diseases has increased longevity especially in -income countries resulting in diminished wellbeing that affects patients, their families, health systems and economies and is forecast to accelerate. The responsibility and the strategies for improv-

ing the quality of life for the world older people must go beyond the health sector. Therefore, the need of health systems to be transformed so that they can provide affordable access to medical interventions that ensure the needs of older people are met and can help prevent care dependency later in life World Health Organization (WHO, 2014).

1.3 Quality of life

According to Mandzuk and McMillan (2005) over the last three decades much was written about Quality of life (QOL). It was applied in many fields such as sociology , popular movies and even in the music field.Though QOL is not a new concept , it was initially identified by Greek philosophy and used by Aristotle when he examined happiness in reflection to QOL. Then following that the term of QOL was discussed by may influential philosophers such as Maslow, Frankl, Sartre and Antonovsky when they referred to inner state of one's life Mandzuk and McMillan (2005). After the World War II this perception continued throughout history when the improvement in living standard and economic growth increased the people's expectations of satisfaction, well-being and psychological fulfilment. In the United states QOL term quality of life of was first introduced by the president Lyndon Johnson in 1964 during his Great Society presentation were he tried to enhance QOL by nourishing the social programs, manpower, education, community development and health and welfare.

World Health Organization (WHO) presented the quality of life as multidimensional which evaluating 26 items of people life such physical health, psychological health, social relationships and environment. This project was established in 1991. The main purpose was to create an international cross- culturally comparable quality of life assessment tools. That assesses the people perceptions, personal goals, standards and concerns all within their cultural and values context (WHO, 2014). Other conceptual approaches to quality of life research theories are the health-related quality of life (HRQOL), as outlined by Wilson and Cleary, (2005) this approach is based on the measuring of the traditional physiological and biological health status and assessing what the patient has experience as result of the medical care provided. It is deficit -base perspective where the abnormal physical, emotional, or cognitive status or altered functional status are the determined of overall QOL. This approach emphasis on illness and degradation that is as-

sociated with deficit-base or diseases specific conceptual frameworks that undermine the inherent generative aspect of the quality of life Wilson and Cleary, (2005). In Europe quality of life is major government concern, where every resident should be provided by sufficient health care regardless of their financial backgrounds and social status. The level of health care is another important area to examine in the quality of life indices. However, the phrase of quality of life is always remain controversial. Many literature reviews have discussed this term from the point of view of the human good or human flourishing Beslerova and Dzurickova, (2014). The author of this literature review explored a new theoretical approach to examine the quality of life in the old age people especially those with chronic heart failure that will be discussed later on.

2.2 Quality of life among elderly people with chronic heart failure

According to Seah et al., (2015) chronic heart failure affects one's physical, psychosocial, spiritual wellbeing and eventually affects individual's quality of life. Patients often express fear of the unknown, because of the unpredictable nature of the illness itself. The strength to cope with heart failure could be influenced by factors like culture, religiosity, spirituality, and life experiences and confidence with self- care. Some patients with CHF who are more optimistic maintain their involvement and participation in life, with regardless the imposed physical limitation by their illnesses. However, other patients diagnosed with CHF are suffering from mood disruption to a greater extent comparing with patients diagnosed with other cardiac disorders. Gender differences are outlined that male patients with CHF report both a belief in the future and feelings of resignation, whereas female patients with CHF experience feeling of anxiety, limitations and powerlessness Seah et al., (2015. Chronic heart failure affects QoL adversely, and its deterioration appears to be due to poor long-term prognosis. QoL is influenced by a multitude of factors derived from the emotional, physical, spiritual and social situation of the patient, which is why it cannot be categorised easily. In the next few lines the author opens these concepts of QOL and discuss how CHF affect elderly’s daily life aspects (Nieminen, 2014).

2.2.1 Chronic heart failure and elderly's physical activity status

Chronic heart failure (CHF) has a negative impact on the elderly people acitivity of daily living (ADL) due to general fatigue, physical fatigue and reduced activity. Fatigue and breathlessness, edema on the lower extremities are the primarily characteristic of CHF among older people, it has multidimensional symptoms that includes individual's body, emotion and cognitive abilities causing physical limitation and emotional discomfort. In addition, to CHF effects on elderly people fatigue, the aging factor too has an impact on the performance of ADL resulting on reduced motivation and giving up of their independence. This limitation on physical activity may result on disability to walk, clean, self-hygiene or failure to accomplish basic ADL.Also leading to depression and mental distress that increases elderly's dependence and need for further assistance. For example, elderly with CHF have cleaning dependency and are facing huge rate of fatigue during caring process, sleeping at night due to breathlessness or shopping and walking longer distance may all cause great difficulty and physical fatigue. Consequently, quality of life is reduced due to lack of rest and tiredness (Norberg et al., 2010).

According to Pihl et. al. (2011) elderly people suffering of chronic heart failure show diminished quality of life due to the restriction on their physical acitivities. Therfore, they first have to focus on their willingness to change their approaches of doing important things. Then accordingly the nursing care plays an important role to promote a rich daily life. By providing advice, education and nursing assessment base on individual need about the appropriate level of physical capacity to maintain daily life. Then to help on facilitating access to health care services such as walking devices and home care services to assess them to enhance their activity of daily living and their QOL in general.

2.2.2 Chronic heart failure and elderly's mental well-being

The most depressing factors that facing elderly with chronic heart failure are the prolong hospitalization, increasing threats of mortality and poor prognosis of disease condition. As result to theses stressors of CHF, elderly patients become more vulnerable to

psychological symptomatology such as depression, lack of cognition, lack of satisfaction and enjoyment, then eventually impaired of quality of life (Sacco et al., 2014). For example, People suffering from CHF have report feeling of minimized sexual intimacy, feeling worthlessness due to decreased physical capacity and inability to work and severely ill CHF patients feel guilty and boredom as diseases conditions get worsen and their dependence on caregiver's increases. Not surprisingly, Chronic heart failure is not curable, and with advance age, elderly is not eligible for cardiac transplant. Thus, it is crucial to understand patient's psychological resources including gratitude, meaning of life, religion/spirituality and medical resources especially with group of terminally ill people (Sacco et.al., 2014).

CHF patients with prolong physical disability perceive themselves as burden to other, lack of self-esteem and see their dignity as destroyed. Elderly become more prone to social isolation, anxiety disorders resulting in increased risk of alcohol/substance abuse and suicide. The need of systematic nursing care plan for CHF patient is very important part to enhance psychological and mental well-being of the elderly. Intervention such routine depression screening protocol in outpatient clinic and cardiology clinics setting may help to detect signs and symptoms of depression and can draw further attention to CHF elderly patient's mental psychological status (Tully and Higgins, 2014).

2.2.3 Chronic heart failure and elderly spirituality

According to Murray et al. (2004) although formal religious services are declining in many western countries, however over the last two and half decades' spirituality emphasis has been increasing in nursing care. Spiritual needs as an essential component of the holistic health care assessment has led many of the health care professionals to suggest the need to develop and implement new policies that are tailored to attend the spiritual needs of terminally ill people. Murray et al. (2004) has defined spiritual need and spiritual care as:" *Spiritual needs are the needs and expectations which humans have to find meaning purpose and value in their life. Such needs can be specifically religious, but people who have no religious faith or are not members of an organised religious have belief system that give their lives meaning and purpose. Spiritual care is about helping people whose sense of meaning purpose and worth is challenged by illness." (Murray et al., 2004).*

As terminally ill patients with chronic heart failure grapple asking" why me?" and" what happens next?" spiritual distress increases, making a need to search for meaning in life become significant issue. Spiritual concerns of CHF people are based on the disease trajectory itself such as disability, the restrictions imposed by age and long term condition and sudden death. CHF patients mainly express their spiritual and emotional needs as not be recognized by healthcare staff, they also feel that they been punished by God and their illness is bay back for their deeds. Other patients feel hopeless and valueless due to their dependence on other for self-care. Depression and isolation due altered-self-image may cause them to ask for dying or to end their own lives (Murray et al., 2004).

Nursing care for elderly people suffering of spiritual distress due to CHF lays on the early stage of interventions and preparing them as early as possible for the end of life process by providing team work that may involve all of: primary care professionals, hospital, staff, palliative care specialists, chaplains and spiritual leaders. This may reduce people struggle and denial stage and may help them to maintain their quality and meaning of life (Murray et al., 2004).

2.2.4 Chronic heart failure and elderly's sociality aspects

Social status among chronic heart failure patients is dramatically affected by the diseases terminal conditions. People frequently refer to their sociality to be limited due to the physical restriction and disability. Diminished social acitivity and increase dependence on other for care has led to a negative emotional response among elderly as guilt, anxiety, frustration, loneliness and fear. Interpersonal relationships been affected by patients feeling abandoned or let down by their own families and friends. This all because of the physical limitation and isolation. For example, the inability to attend socail and family events because of pharmacological side effects. The use of diuretics may lead to frequency of urination and urgency, this may increase patient's isolation and decreases their self-esteem and confidence. Also as CHF affects sexual performance, frequency and intimacy this may cause distress among couple's relationships leading to more frustration and depression. In contrast any positive change in the interpersonal relationships may cause gain and up rise in self-confidence, safety and trust among CHF elderly with sounding sphere, ultimately an improve in the quality of life (Jeon et al., 2010).

3 THEORETICAL FRAMEWORK

Theoretical framework is defined as set of systemic concepts and statements that are organized in way to specify the nature of relationships and connections between and two or more variable, the main target is to establish an understanding of a problem or to know the nature of things and concepts as symbolic definition of a phenomenon or class of phenomena (Green, 2014).

3.1 Register theory of Generative Quality of Life for the Elderly

In this literature review the author has adapted the Register Theory of Generative Quality of Life for the Elderly (GQOLE) as theoretical framework. The reason behind is that according to author review on the available quality of life nursing theories, it is the only one that suited the care of elderly people. It is relatively a young theory from the middle range which is established by researcher Elizabeth Mauri, Register, PHD, MSN, MPH, and gerontologist. The establishment of the theory was based on believe that an ontological error has led researchers to inconsistently portray quality of life as a given or inherent condition which decline in the face of challenges. Quality of life is defined as "a cumulative process which results from a series of connections and disconnections that older people experience in their daily lives". To understand this best according to Register and Herman (2006) an example was illustrated, when an elderly patient makes a phone call to an insurance company in order to obtain a preauthorization for upcoming surgical procedure and then encounter an automated voice messages that ultimately terminated at the original message and ends the call without allowing the patient to communicate properly. Such incident considers a negative experience and it diminishes the individual quality of life. Conversely, if the same elderly patient has encounter bet-

ter experience by directly speaking with a kind passionate representative who graciously guides him/her through the preauthorization procedure that would be considered then a positive experience and it would bolster people quality of life. In the first case the failure to make connection, unable to obtain the preauthorization and dealing with automated voice machine all of these had a negative feeling of disconnectedness to the elderly patient. Whereas, when connected with a kind caring intermediary who solve the issue, the caller would feel happy, satisfied the ultimately report this experience as a positive one that would enhance his/her quality of life. Therfore, quality of life is dynamic personal perceptions that diminished by negativity and disconnectedness and enhances by positive experiences and connectedness (Register and Herman, 2006).

By placing the elderly QOL in generative "context", Registers theory offers us a new alternative perspective in QOL that may revolutionize our understanding of QOL in the nursing care Register and Herman (2006). The Register theory of GQOL, it is based on the General System Theory. It relates to the expansionism and reductionism approaches of the open system. According to Register and Herman (2006) the four main ideas of the general system theory are:

1. Interrelationship and interdependence of objects (unrelated independent elements can never constitute a system.
2. Holism (holism properties undetectable by analysis should be definable in system.
3. Teleology or goal-seeking behavior (systemic interactions must result in a goal).
4. Transformation process (all systems must transform inputs and outputs.

Open systems are known as systems that continuously exchange with the environment through importing, transforming and exporting matter and energy to maintain the system. Also are defined as an ongoing process of generative and degenerative of components. This ontological approach is trying to answer the assumption or question of" how is QOL is created?". The term of connected is defined as the process of synchronous, harmonious and interactive state. Also known as the phenomenon that occurs throughout life as being connected with forces and process (Figure1) that constitute an assenting existence of pleasant and optimistic (Register and Herman, 2006).

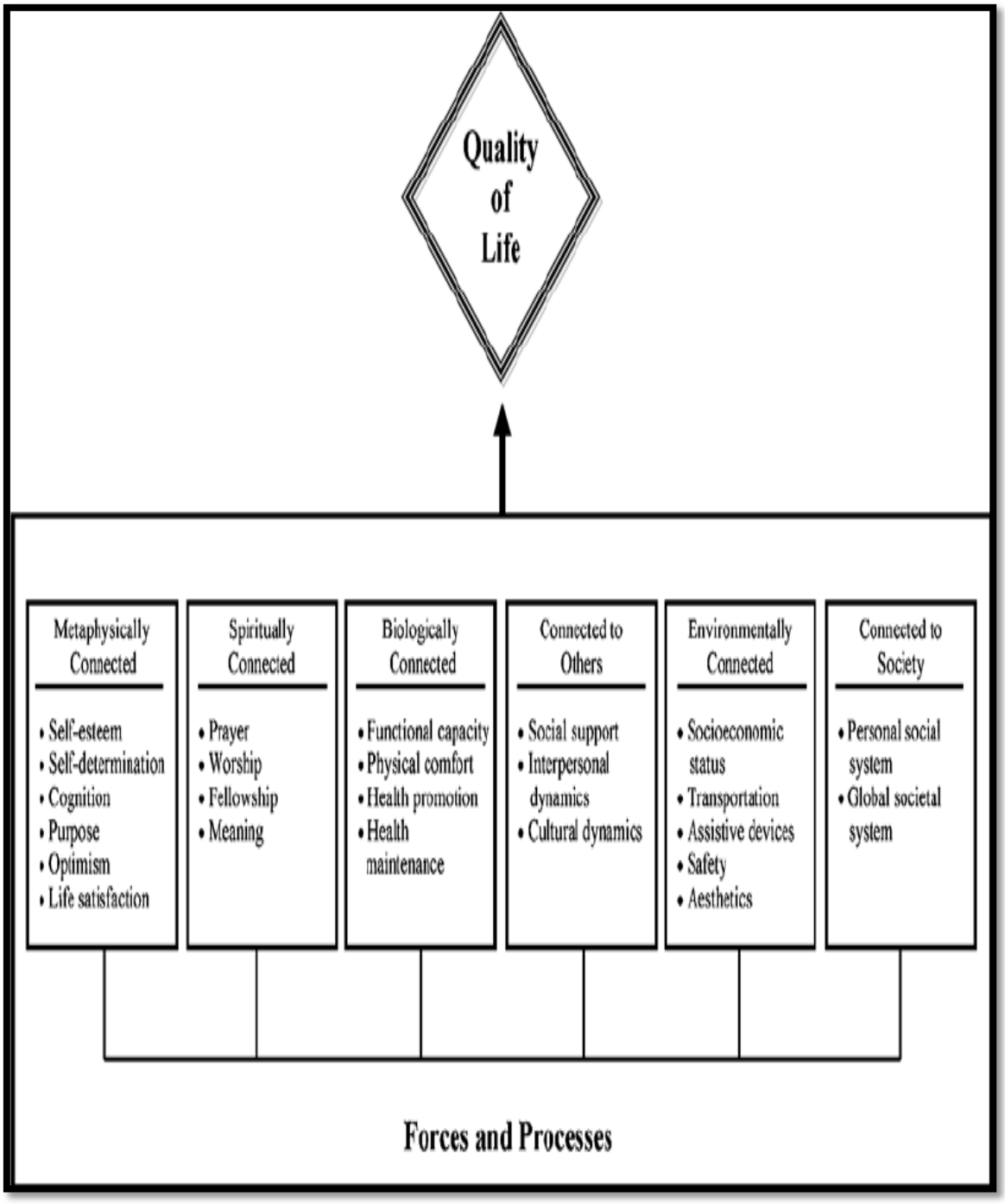

Figure 1: Register theory of Generative Quality of Life for the Elderly. (Copyright 2005 M. Elizabeth Register).

3.2 Concepts of connection based on Register´s theory

3.2.1 Metaphysical connected

Metaphysical connection is maintaining a full awareness of self within a larger universe by interaction between the internal forces and processes like self-esteem, self – determination, cognition, sense of purpose, optimism and life satisfaction. The expected outcomes are to know (1) who we are, (2) what we value, (3) what we do, (4) where we go, (5) why we are here, and (6) as human beings how we connect ourselves. This kind of connection has introspection steep and needs consistence of self-awareness. Therefore, QOL is generated from a nurture of assenting existence when a positive connection with metaphysical forces and processes occur. This connection to metaphysical forces and processes may explain why some older people with severe conditions and terminal illnesses may continue to report a good QOL (Register and Herman, 2006).

3.2.2 Spiritually connected

Spiritual connection is the act of being connected with a power or divine being that might overcome any individual's sphere of influence through the act of prayer, worship, and fellowship. Spiritual connectedness includes the search for purpose in life and meaning full. To be spiritually connected increase a sense of purpose, meaning, spiritual nourishment, and renewal, which may produce an assenting existence that generates QOL.Therefore spiritually connections empower the soul in such a way that disease, illnesses, or disabilities have only minimal impact. This connection transcends the pain and suffering of illness by providing an existential focus. According to Register's GQOL spiritual connectedness may explain why some people chronic illnesses or in their end of life continue to report a good QOL, by expressing a sense of solace, satisfactions, completion, meaningful, happiness, and a hopeful abandonment of self to God's will (Register and Herman, 2006).

3.2.3 Biologically connected

Biological connection is defined as the act on optimizing functional capacity, performance, physical comfort, and activities related to health promotion and proactive health maintenance. Through a generative approach that produce an assenting existence which generates QOL. The biological connections help elderly to accept difficulties and limitations and embrace it with a goal-oriented optimism, in lieu of succumbing to the associated negative emotions by diseases (Register and Herman, 2006). Generative elders tend to counterbalance disconnections, and develop adoptive behaviors that embrace limitations and maintain biological connectedness. This may explain the postoperative satisfaction and success rates among elderly people who have undergone total joint arthroplasty. According Register and Herman (2006) quality of life is generated when elderly patients who experienced restorative surgeries such as total joint replacements maintain their biological connectedness which allow them to gain or maintain desired levels of physical activity, independent living, and to become a community walker without assistance (Register and Herman, 2006).

3.2.4 Connected to others

Register and Herman, (2006) described connected to other as being connected to others that includes all human interpersonal relationships involving, but not limited to family, friends, neighbors, and acquaintances both living and deceased, Connectedness to others generates from the inherent human character to be a part of a social system. Because humans are social beings that thrive on interactions these connections maintain an assenting existence. Personal interactions and connections generate a positive QOL. There-fore fulfillment and validation are received when elderly are socially connected, which allows them to eternize the interactive cycle and further open themselves to others. When a generative process is created by the cycle of connections as result QOL is built. In contract QOL is diminished when elders are not socially connected and feed-

back loop does not happen. The Social connectedness may explain why some stroke patients report feeling loss of connection with others when they are no longer able to speak and partici-pate in mutual conversations (Register and Herman, 2006).

3.2.5 Environmentally connected

Environmentally connected is working sincerely to connect ourselves with surrounding individual living environment and the natural environment. Connection with living environments are sustained by comfort with daily routines, spatial orientation, using both safety and adaptive measures, use of transportation and making simple home modifications. An adaptive and /or assistive measure could be like using grab bars, denture, and guide dogs to help maintain connections with the oneself environment. Such devices that help elderly to ensure personal safety, enjoy eating their favorite foods and move freely can have a profound effect that generate positive QOL. Being connected to environment is associated with the deriving pleasure from environment. For example, appreciating for sunshine. trees, flowers, breathing deeply on a cool crisp morning, delight in an ice cream, singing Christmas carols or watch their favorite movie. These such consider minor mundane events are very powerful affirmations of self that may be an opportunity to generate QOL in elderly lives (Register and Herman, 2006).

3.2.6 Connected to Society

Connected to society is the act of being involved with two parallel systems (1) a personal social system and (2) a global societal system. Active participation in volunteer activi-ties and varying degrees of social activism are examples for the personal social system. Whereas awareness and participation in the democratic process and the interaction with local, state, and federal government programs, like Medicare and Medicaid. Connected to society is well presented when elderly people maintain on going involvement with their current personal and global societal issues. For instant, being actively keeping

up with their personal society by attending children's and grandchildren's activities, birth-days, setbacks. elders keep connected to their global society by exercising their constitu-tional right to vote, keeping up their daily news cycle and refusing to be marginalized or dismissed generate a sense of ownership, stewardship that facilitate an assenting exist-ence that maintain positive QOL (Register and Herman, 2006).

3.2.7 Register's theory implication for nursing practice

According to the GQOL the intuitive implication for nursing practice are positively overwhelming. As new concept nursing interventions from the GQOL perspective could be different. The nursing care goals would be to establish patient-centered connections that may result in introducing type of elderly who are generative and welling to sustain a variety of QOL approaches and activities in response to forces and processes they encounter on a daily basis. In contrast it should not be surprised when elderly in some institutionalized setting report to have depression and ideation of suicidal as result of a predictable series of disconnections as they were up rooted from their homes (Register and Herman, 2006). Therefore, GQOL theory offers a unique framework to design patient-centered QOL in nursing interventions and assistance for all elders and community dwelling elderly (Register and Herman, 2006).

4 AIM AND RESEARCH QUESTIONS

The aim of the review is to shed a light and gain a knowledge of the current nursing interventions to enhance the quality of life of elderly with chronic heart failure. The purpose of this literature review is to examine and identify the existing evidences of how chronic heart failure affect the quality of life in older people and what are the interventions to improve it.

Research Question:

The review considered the following main question in relation to the quality of life

1. What is the effects of Chronic heart on the quality of life of elderly people?
2. What are the nursing interventions to enhance the quality of life for the elderly patients suffering from chronic heart failure?

5 METHODOLOGY

Methodology chapter is considered the bulk of the research study. In this chapter the author identifies to the readers what type of research methods are used for the study analysis, then illustrate precisely how the data was collected, analyzed and finally justify interpretation of findings in order to answer the research question and inquiries. Methodology process is systematic and structured, also it provides a knowledge about the strengths and weakness areas of previous studies (Hsieh and Shannon, 2005).

Literature review

Qualitative research methods a literature review is used by the author to approach this study. According to Broomfield (2015) qualitative research method is referred to using the non-statistical methods of analysis to examine subjective human experience that explores the complex experience of human beings with association of naturalistic inquiry. Qualitative research methods suits nursing researches that focus on patients and health professional's experiences. In Qualitative design no hypotheses are used, the data analysis process is determined first by stating an observational question to be explore, then transforming of raw data in to categories, sub-categories and themes by narrowing down the topic to specific one sentence statement of the problem. Later the credibility of the finding depends on how data analysis is conducted and approached by the researchers, also on the nature of the research questions (Vishnevsky and Beanland, 2004; Broomfield, 2015). A literature review using contents analysis was chosen for the paper data analysis. An effective literature review in qualitative research is defined as following:

"*A review of prior, relevant literature is an essential feature of any academic project. An effective review creates a firm foundation for advancing knowledge. It facilitates theory development, closes areas where a plethora of research exists, and uncovers areas where research is needed*.".) Webster and Watson, 2002)

Therefore, the author has conducted a literature review method in order to achieve a review that is concepts focus. In addition, when a literature review is completed, its evaluated with high quality. Thus, concepts within research determine how to proceed and organize the framework of a review. It is continuously related to study or research question and constructively informs the reader about what has been learned. A literature review put findings in to summary and outline what is discovered and what knowledge is missing, it highlights areas of controversy and finally identify critical knowledge gaps that motivates future researchers to fill in these gaps. (Webster and Watson, 2002).

5.1 Data collection

Study data collection process done following an organized step. These steps started with signing up an approval for the thesis project supervised by Arcada University of Applied Science. All databases are academic. Thus data accessed and searched for through Arcada University databases such as EBSCO, SCINECEDIRECT, PubMed. Articles were reviewed to provide evidence base knowledge and to answer study inquiry (Table1)

Table 1: Articles retrieval

No table of figures entries found.	**Search Category Combination**	**Number of Hits**	**Inclusion criteria**	**Relevant Articles**	**Selected articles**
EBSCO	QOL and HF and Intervention QOL and HF and Nursing	432 371	81 106	21 10	5
SCINECDIRECT	QOL and CHF and Intervention	36,388	728	10	3
Sage	CHF and QOL and elderly and intervention	435	413	17	2
PubMed	Quality of life and Heart failure	6974	362	5	2
Total		44,600	1690	63	12

Including criteria

Prior to search for relevant articles the including criteria was set to ensure that all the selected articles for the study are from academic database such EBSCO, PubMed, SCINECEDIRECT and Sage. All the article was directly related to the search topic and were in full text and peer reviewed. All were free access with no charge or fee on it, as the study is not funded or sponsored. Only articles written in English languge were considered and those articles published from years 2000 to 2016 were chosen to ensure that updated and recent knowledge is available. In some database such PubMed adding humans as filter was done. Number of evolved articles kept changing as search continued. Finally, 63 articles were collected in total for further studying to choose the final 12 articles which will answer the research question

Excluding criteria

As including criteria is set also some criteria was set for excluding articles that were Not in English laungue, not peer reviewed also articles which were dated before year of 2000. All articles have bias on it were excluded to ensure credibility of the study. The summary of the including and excluding criteria are in (Table 2).

Table 2: Including and Excluding criteria

Including Criteria	**Excluding Criteria**
• Only English articles • Only Free access and full text articles • Articles dated from years 2000-2015 • Articles that relevant to the research topic and not biased • Academic articles retrieval from database such EBSCO, PubMed, SCIENCEDIRECT and Sage. • Peer reviewed articles	• Non-English articles • Non full text and articles with fees • Articles before year 2000 • Non relevant and biased articles • Nonacademic articles from magazine or blogs. • Non peer reviewed articles

5.2 Presentation of articles

During the organizing phase reading through the collected 12 articles was done thoroughly. A presentation of the academic databases and all of the selected articles abstracts are as following:

Academic database (Science Direct): Total 2

Article 1:

Title: Effect of psychosocial intervention on quality of life in patients with chronic heart failure. Samartzis et al., (2013). *Journal of cardia failure Vol.19 No.2 2013.*

Study Purpose: To explore the effect of psychosocial interventions on the QOL of CHF patients, also its magnitude effect and factors that may moderate effect of reported QOL.

Method: Meta- analysis of data from 16 randomized control trails.

Study Finding: A significate overall quality of life improvement reported after conducting psychosocial intervention with chronic heart failure patients.

Article 2:

Title: Effect of an E-learning Program On the Quality of Life of Patients with Coronary Heart Disease. Salameh et al., (2012). *Procedia- Social and Behavioral Science 55 (2012) 284-293.*

Study Purpose: The Purpose of the study is to assess the effect of E. Learning program on the quality of life of coronary heart disease patient.

Method: A quasi –experimental method used E. Learning grogram to evaluate the it effect on the quality of life of recently diagnosed CHD patients 65 intervention group and 61 control group.

Study Finding: At follow up period higher QOL is revealed in almost all domains compared to control groups.

Article 3

Title: End of life care in patients with heart failure.

Whellan et al., (2014). *Journal of Cardiac Failure Vol. 20 No.2 (2014)*

Study Purpose: To highlight key of end of life care consideration in heart failure patients, and to address the issues needed to optimize the care.

Method: white paper

Study Finding: Communication and discussion of end of life care need to be stared early during care plan of HF patient.

Academic database (SAGE journals) Total 2

Article 4:

Title: Dance therapy in patients with chronic heart failure: a systemic review and a meta-analysis. Neto et al., (2014). *Clinical rehabilitation 2014, Vol. 28(12)1172-1179*

Study Purpose: To assess the effectiveness of dance therapy was more than conventional exercise in exercise capacity and HRQOL in patients with CHF.

Method: A systemic review and a meta-analysis

Study Finding: Studies shown that dance therapy may improve the peak VO2 and health-related quality of life in patient with CHF, it also could be included in the cardiac rehabilitation programs.

Article 5:

Title: The influence of a spirituality –based intervention on quality of life, depression, and anxiety in community –dwelling adults with cardiovascular disease, Delaney et al., (2012). *Journal of Holistic Nursing, American Holistic Nurses Association Vol:29 Number 1 March 2011 21-32.*

Study Purpose: To determine the preliminary efficacy and feasibility of an individualized spiritually-based intervention on HRQOL outcomes (QOL, depression, and anxiety) in community –dwelling patients with CHF.

Method: A pilot study, self-reporting data from three cardiac community-dwelling organizations.

Study Finding: an individualized spiritually –based intervention holds potentials to improve QOL and could be used as additional therapy in traditional cardiac care for patients with CHF.

Academic database Elite (EBSCO) Total 5

Article 6:

Title: Improving health-related quality of life of patients with chronic heart failure. effect of relaxation therapy. Doris S.F. Yu, Diana T.F. Lee and Jean Woo (2009). *Journal of advanced Nursing 66(2),392-403.*

Study Purpose: To examine the effect of relaxation training on HRQOL of chronic heart failure chinses patients

Method: Questionnaire study done by using WHO quality of life questionnaire and completed 8^{th} and 12^{th} week after discharge.

Study Finding: Relaxation technique was beneficial for the Chinese patients emotional and social QOL.

Article 7:

Title: Effect of community-based meditative Tai Chi program on improving quality of life, physical and mental health in chronic heart failure participants. Sun J., c.d.e, Nicholas Buysa and Rohan Jayasingh. *Aging and mental health, 2014Vol.18, No.3,289-295.*

Study Purpose: To compare the effect of meditative Tai Chi program on heart failure patients between pre-intervention and post-intervention phases of six-month time on their quality of life

Method: A prospective intervention study

Study Finding: Tai Chi meditative program had a beneficial effect on the QOL of heart failure patients, reducing psychological distress, promoting resilience, and reducing BMI and blood pressure on HF patients.

Article 8:

Title: Self-care and quality of life among patients with heart failure. Britz and Dunn (2010). *Journal of American Academy of Nursing Practitioners 22(2010) 480-487.*

Study Purpose: To determine if there any specific self-care deficit among HF patient after the discharge from critical are units.

Method: A cross-sectional, descriptive study

Study Finding: QOL improvement is significantly related to self-confidence and perceived better health among HF patients.

Article 9:

Title: Impact of nurse-directed patient's education on quality of life and functional capacity in people with HF. Kutzleb and Reiner (2006). *Journal of American Academy of Nursing Practitioners 18 (2006) 116-123.*

Study Purpose: To evaluate the effect of nurse-directed education on HF patients QOL, life style modification, diet and functional capacity.

Method: Multi center prospective quasi experimental study.

Study Finding: results shown improvement of QOL and patients control of symptoms and self-management.

Article 10:

Title: A community model of group rehabilitation for older patients with CHF. Hui et al., (2006). Disability and Rehabilitation, December (2006);28(23).1491-1497

Study Purpose: The aim of study is to evaluate a community based grogram for heart failure patients base on exercise and education

Method: A pilot study, 12 weeks of after –and- before trail, patients undergone 12 week of comprising exercise and education and mutual support.

Study Finding: study shown that group program has positive effect on the physical and overall quality of life of heart failure adults.

Article 11:

Title: Cardiac rehabilitation exercise and self-care for chronic heart failure.

Ades et al., (2013). *JACC Heart Failure. 2013, December 1(6) 540-547.*

Study Purpose: To review the current evidence on the benefits and risks of cardiac rehabilitation and self-care counseling in patients with CHF.

Method: A systematic review and meta-analysis

Study Finding: Study shown that CHF counseling in isolation or combination with cardiac rehabilitation improve the quality of life, mental depression and clinical outcomes.

Article 12:

Title: The relationship between socail support and quality of life in patients with heart failure. Barutcu and Mert (2013). Department of Medicine and Nursing Dokuz Eylul university Faculty of Nursing, Inciralti, Izmir, Turky.

Study Purpose: To describe the level of socail support and quality of life in CHF patients and examine their relationships with perceived social support and QOL.

Method: Cross sectional study

Study Finding: Quality of life improved with increases socail support for heart failure patients.

5.3 Data Analysis

Qualitative content analysis method is chosen by the author to answer the research questions. Content analysis is defined by Vaismoradi et al. (2013) as “a general term for a number of different strategies used to analyze a text ". Content analysis uses a subjective interpretation by a systematic coding and categorizing to the data within large amount of textual and examines the relationships between the patterns and trends of the words used, their frequency, structures and their discourses of communication. Content analysis is objective and systematical. Its well- suited to study and analyze important, sensitive and multifaceted phenomena of nursing. The main purpose of using the content analysis methods in this study is to provide insights, knowledge and practical guidelines for the working life. But like any other approaches, content analysis methods face critics in the quantitative field for being simple in nature that does not have the complex statistical analysis and for being not sufficiently qualitative (Elo and Kyngäs, 2008).

Therefore, it is crucial for the author to justify his selection of the qualitative content analysis as method by the presenting the advantages and disadvantages of this research method. The main advantages are:

- Being context sensitive.
- Being less costly and inexpensive.
- Well suited the health care and nursing researches by interpreting texts for a wide range of purposes.

- Can deal with large volume of data analysis.
- Being un-obstructive research technique.

While the main dis-advantages are being ambiguous or too extensive labor work when it's done manually. In addition, it may pose a threat to successful analysis by the researcher excessive interpretations Elo and Kyngäs (2008). According to Hsieh and Shannon (2005) qualitative content analysis has three distinct approaches :(1). **Conventional qualitative content analysis** is used generally to describe a phenomenon when existing theory or previous research literature is limited. No preconceived categories allowed, all the categories, sub-categories and all the new insights emerges from the data using inductive analysis. It is commonly used in grounded theory. (2). **A directive qualitative content analysis**, is mainly used to validate or extend existing theory or incomplete phenomenon. Data analysis is done using predetermined codes that emerge from the conceptual theoretical framework to identify study key concepts or variables, then the categorizing of data is done deductively. (3). **Summative qualitative content analysis**, is done by understanding the contextual use of the data content, it starts from the manifest content analysis level of counting the frequency of particular words or content in text, to the latent content analysis level of processing interpretation of content by discovering and underlying the meaning of the words.

Granheim and Lundman (2004) study has pointed that it is fundamental step for the author when performing qualitative content analysis to clarify which level of analysis does the study focus on, whether it is manifest or latent. Manifest level of analysis deals with the obvious, visible components of the text and reports what the text says. In contrast, latent level of analysis goes in depth within the text to report the underlying meaning of the text or the notice silence, laughter, posture and what its actually talking about. Content analysis methods can be used in both qualitative research and quantitative research, also can be approached either inductively or deductively. Deductive reasoning also called "top down" is the approach used to test a theory or to investigate hypothesis from more general information to more specific data. On the other hand, inductive reasoning also called "bottom up " where approach is used to move from the specific data and knowledge to the general, ending up with theories or general conclusions Broomfield, (2015).

In reflection to the above methodology definitions and descriptions the study author has chosen qualitative content analysis method while data analysis to be conducted inductively at the manifest level. The three main phases of the content analysis are: preparation, organizing and reporting. These three phases are used in both inductive and deductive analysis, the difference lays on how many words in the text are classified into small units or categories and also depending on the type of the research questions Elo and Kyngäs (2008). Preparation phase started by collecting the relevant articles and reading through it several times to ensure all important data were pointed and highlighted. In this study the author is refereeing to Register theory of Generative Quality of Life for elderly people as background theory. Organization phase started by categorizing the articles to main categories and sub- categories base on the relation of common findings and results. The purpose of this literature review is to study "what is the effect of chronic heart failure on the elderly quality of life?" and to explore" What are the nursing care interventions to enhance the QOL of elderly people suffering from chronic heart failure?".

5.4 Ethical consideration

According to Ignacio and Taylor (2013) There is no research study that is free of ethical issues. Although both qualitative and quantitative research methods obtain the principle of doing good "beneficence" and avoid harm" maleficence", but it also could face some ethical dilemmas. The author of this qualitative literature view is obligated to discuss any ethical issue may have considered the study project, despite the stringent of methodological protocols. In all means the author avoided violating Arcade's University of Applied Science thesis guidelines by signing consent paper for thesis supersession and followed all the scientific writing guidelines that been given by the study supervisor. Academic writing principle such trustworthiness, rigor and quality were considered. All articles reviewed for the study analysis were collected from academic databases, peer re-viewed and were related to the research questions. Plagiarism were avoided by proper referencing for all quotation from the articles and by not quoting directly. Author has avoided any fabrication of data by accurate reviewing, measuring, analyzing and reporting of results and findings from academic resources. Research integrity were maintained by reporting evidence bases finding that is not affected by the author personal interest or

bias. Due recognition was always given to the work and finding of other achievements, to ensure that they are accredited and respected. Finally, all the figures used in the study were referenced and copy right were reserved, also the nursing code of ethics principles of respecting human being's dignity, right for proper treatment regardless their race, ethnicity, religion and sex International Council of Nursing-ICN (2012) were followed.

6 FINDING

In this chapter the findings of research studies are presented. The first question" what is the effect of chronic heart failure on the quality of life of elderly people"? was reviewed and answered precisely in background chapter concluding that chronic heart failure has a negative effect on the elderly people quality of life at all levels physically, psychologically, spiritually and socially and the need for nursing care to enhance the QOL is important. The findings to answer the second question" what are the nursing interventions to enhance the quality of life for elderly suffering from chronic heart failure"? will be presented in the following main categories and sub categories.

Q.2 What are the nursing interventions to enhance the quality of life for elderly people suffering of chronic heart failure?

Categories	Sub- Categories
6.1 Cardiac rehabilitation	6.1.1 Nursing care to improve Functional capacity 6.1.2 Nursing care to enhance self- care management

6.2 Psychosocial rehabilitation	6.2.1 Nursing care to support psycho-social status 6.2.2 Nursing care to support spiritual needs
6.3 Communication	6.3.1 E- learning and health education 6.3.2 End of life communication

Table 3: Categories and sub categories of content analysis

6.1 Cardiac rehabilitation

Cardiac rehabilitation refers to the chronic heart failure program that incorporate both supervised exercise training and disease related self –care counselling. Cardiac rehabilitation was emerged as a major category to be deductively analyzed. Finding from several studies shown that elderly patients with chronic heart failure reports improvements in their functional capacity, self-care managements, clinical benefits, symptoms control and overall quality of life when they were introduced to exercise training such as aerobic, walking, dancing and Tai Chi program in combination with individual self-care counsel-ling, self-care confident evaluation and health education performed by healthcare members (Ades et al., 2013; Sun et al., 2014; Neto et al., 2014; Britz and Dunn, 2010; Hui et al., 2006; Kutzleb and Reiner, 2006).

6.1.1 Nursing care to improve functional capacity

Chronic heart failure elderly is encouraged to improve their functional capacity in order to enhance their quality of life. Studies of (Kutzleb and Reiner, 2006; Ades et al., 2013) have suggested that functional capacity including activities such physical performance of self-care, activities of daily living, independent mobilization, the capacity to partici-

pate in recreational and occupational acitivities affect the heart failure patient's quality of life in many domains. According to Sun et al. (2014) Tai Chi meditation techniques is an example of methods used increases functional capacity. It is provided by professional trained instructors, and it was significantly effective in enhancing the QOL of CHF participants, it improved the breathing, balancing, flexibility, calming, concentration and stress reduction among CHF patients. Also this technique had shown reduction in physiological factors such Blood Pressure, Body Mass Index, and in the Central Obesity with CHF elderly. Exercise therapy added a beneficial effect on the CHF patient general health and quality of life (Ades et al., 2013; Hui et al., 2006; Sun et al., 2014).
Another study done by Ades et al. (2013) that used HF-ACTION study to evaluate QOL of patients undergone exercise training of 4 sessions weekly with 30-minute duration has shown improvement in KCCQ total score and lower depression score. Same study also suggests that as part of cardiac rehabilitation program exercise training with ongoing health education and support may reduce re-hospitalization rate and improve quality of life. Dancing therapy was suggested by systemic review study of Neto et al., (2014) as alternative conventional of exercise therapy for patients who could not fit in the inclusion criteria. Dancing therapy has positive effect on increasing peak VO2 and enhancing the health related-quality of life. It facilitates sharing interpersonal feeling such as cognitive, emotional, physical and social integration of person which eventually enhance self-confident. Therfore dancing therapy were recommended for adaption within cardiac rehabilitation program for it physiological and functional generative effects. Improved physical functionality has been reported to affect CHF patients positively. Cardiac rehabilitation program of community-model group has significantly important psychosocial and physical outcomes. Hui et al. (2006) study suggest that when group rehabilitation is introduced to community-dwelling older patients suffering of CHF and in combination with group support and disease related health education, results shown community dwelling elderly reported empowerment and more responsibility for self-care management and better utilization of community resources available such voluntary organizations. Exercise routine has become part of their daily socail activity, knowledge behaviours become more effective with peer support, and group environment had alleviated socail isolation and depression. Functional capacity among chronic heart failure patients is enhanced by many forms of exercise therapies in combination of

health care professional's supervision (Hui et al., 2006; Kutzleb and Reiner, 2006; Britz and Dunn, 2010; Ades et al., 2013).

6.1.2 Nursing care to enhance self-care management

According to Britz and Dunn (2010) Self-care deficits among chronic heart failure patients is commonly associated with negative health outcomes and reduction of the quality of life. Study reported that self-care skills such as following strict low salt diet, daily weight, daily exercise, identification of worsening symptoms of CHF and medication compliance may lead to frequent hospitalization and decreased of the QOL. Therefore, many studies (Britz and Dunn, 2010; Kutzleb and Reiner, 2006: Hui et al., 2006: Ades et al., 2013) agreed on the effect of nursing direct health education to enhance self-care confident among CHF patient has a great impact on the diseased control and improves the quality of life. Studies suggested that nurses should assess the self-care deficit among CHF prior discharge to determine the level of self-care confident and accordingly provide the adequate health education to CHF patients, spouse and/or caregivers. Being self-confident is a positive indicator for incearse QOL. Improved functional capacity has a significate impact on CHF patients, especially elderly people when seen by nurses in regular basses, examined by psychologists, dietitian, visited by physicians may result in enhanced self-care behaviours scale (Britz and Dunn, 2010; Kutzleb and Reiner, 2006; Ades et al., 2013).

6.2 Psychosocial rehabilitation

This major theme emerges as part of the nursing care interventions to enhance the quality of life among CHF elderly patients. Study of Samartzis et al. (2013) has defined psychosocial interventions as any structured non-pharmacological interventions that focus on improving the psychological and /or social aspects of patient's life and mainly conducted by health care professionals. A study conducted by Barutcu and Mert (2013) highlighted that perceived social support mainly from family has great effects on the quality of life of patients with chronic heart failure. Interventions that enhances spiritual

needs had shown positive effect on the overall quality of life domains of elderly patients with chronic heart failure (Delaney et al., 2012).

6.2.1 Nursing support to enhance psycho-social status

The study that based on meta –analysis of previous research Samartzis et al., (2013), has suggested that psychosocial interventions such face to face interventions enhance the quality of life of chronic heart failure patients more than regular methods of telephone counselling. A modern method of face-to face tend to develop a therapeutic relationships and increases the patient's adherence to healthcare recommendations. This method mainly decreases the effects of depression and anxiety among CHF people that lead to improve of general QOL domains and reduces both mortality and morbidity rates as well. The strength of this meta –analysis study was based on large sample of 2,180 chronic heart failure patients from 16 different Random Control Trails (RCT) that provide evidence based of the effectiveness of psych-socail interventions on the QOL of CHF patients (Samartzis et al., 2013). A relaxation technique was suggested by the Chinese study of Yu et al., (2010) using the Progressive Muscular Relaxation Technique (PMRT) among 121 Chinese patients with chronic heart failure. Study shown that health-related quality of life HR-QOL had substantial improvement when RMRT which is done by tensing and relaxing 16 muscles groups throughout the body following certain sequences was introduced to the study group, patients had positive improvement in their emotional status and were able to stop thinking depressively and with irrational thoughts, also patients were able to retreated mentally from distress. study also highlighted that older CHF are more receptive to adapt to training in a single relaxation technique. Yu et al. (2010) also pointed at the positive effect of relaxation therapy on the socail aspect of QOL. study discussed that CHF has imposed a great restriction on social life of elderly patients due to its debilitating nature. Relaxation therapy has increased physiological and psychological beneficial that help CHF patients to participate more in the training session and be more socially active YU et al., (2010). Another study of Barutcu and Mert (2013) conducted in Turkey has mention the positive effect of social support on quality of life of CHF elderly patients when provide by families, friends and other significant. Social support plays an important role in improvement of CHF quality of life, therefore nursed are encouraged to find a way in which families and

care givers are activated and supported to face the burden of Heart failure. By providing educations about disease related topics, stress copying strategies and effective communication skills. Therfore, training would help families and support group of the CHF patients to give effective socail support that eventually would increase the quality of life of CHF people (Barutcu and Mert, 2013).

6.2.2 Nursing care to support spiritual needs

A psycho-spiritual rehabilitation program was suggested by study of Delaney et al. (2012) as study shown that spiritual intervention introducing blessing CD, mindful meditation to enhance self –discover, Heart Touch technique used to enhance spirituality and the sense of connection to other ,finally environment/prayer technique to enhance the healing environment and improve the interpersonal aspects of spirituality all have shown strong effect on QOL .Quality of life aspects such family, health and functionality, psycho-social and spiritualty were significantly elevated with nursing interventions given. This pilot study of Delaney et al. (2012) has a major strength of testing the individual spirituality needs of cardiac patients especially elderly of dwelling community. Most of patients reported positive feedbacks when given self-discovery meditation interventions that pertained their awareness of the inner chatter, modified their perceptions and made them feel more tranquilized an example'**s** of one patient reply as such *"I tried to focus on my breathing, I become aware of all my inner thoughts, I realized I send my self-negative thoughts sometimes. It was difficult to quiet these thoughts at first, but now that I am aware of my thoughts I am able to change the message I am sending myself, I am more positive and more of the type of person I want to be" (Delaney et al., 2012 p.28).*

Other interventions were relationship meditation using Heart Touching technique patients reported that meditation has provided them with opportunity to forgiveness and rebuild their relationships. The effect of this technique was reflected on the patients comments such: *"I was able to begin to release the pain of the past …. I had not spoken with my sister for several years and I realize now that it's time for us to reconnect. I was able to let it go and to focus on bringing in joy to my life and spreading it around. I called her last week for the first time in years…. it's a start." (Delaney et al., 2012 p.28).*

A multisensory experience was evoked by the echo-awareness meditation. Patients had experience to be connected to their environment at a new level, one patients express that by "*Today I focused on the light and shadows on the trees and listened to the rustling of leaves". (Delaney et al., 2012 p.28).* Other said *"I sat near my garden and could smell the scent of my lavender and feel a soft breeze on my face"." (Delaney et al., 2012 p.28).*

In conclusion the Delaney et al. (2012) study pointed that individualized spiritual interventions does enhance the quality of life for elderly patients with cardiac disease and the need for further researches is crucial.

Another study conducted by Whellan et al. (2014) has mentioned that spiritual aspects of patients with chronic heart failure is must be discussed as part of end of life care. Study highlighted that in the end of life care and palliative care, patients are in need to be supported by listening to their choice and opinions about end of life care, their preferences of performing a faith important community address spiritual assessment, about their prayers, and their chaplaincy involvements. Therfore, nurses are encouraged to support the patients end of life care and to guide the CHF patients towards a peaceful end of life journey (Whellan et al., 2014).

6.3 Communication

Several study findings have shown that effective communication among chronic heart failure elderly and their health care professionals is essential factor to enhance quality of lie at all levels. Nursing interventions providing face to face communication, telephone counselling, or through E. learning programs are all approaches to facilitate the conducting of care and to enhance self-care management, self-confidents, also to enhance physical capacity and psycho-socail performance of elderly patients with chronic heart failure (Ades et al., 2013; Samartzis et al., 2013; Whellan et al., 2014; Brits and Dunn, 2012; Kutzleb and Reiner 2006; Salameh et al., 2012).

6.3.1 E. Learning and health education

As part of the fast developing world e.health has become a widely known concept. Salameh et al. (2012) study has outlined that E.learning program design for Coronary Artery Disease CAD patients demonstrated with educational web site, were patients are encouraged to enter the site and utilize the available health education information and to interact with the health care professionals by up loading their questions, inquiries and their health issues. Study shown that patient of study group reported an elevation of eight domains of QOL as physical function, mental health, social functioning, role emotion, role physical, bodily pain vitality and general quality of life. The advantage of this E.learing approach lays on the availability of internet service nowadays and on the ability of patient to express their feeling and talk freely about their conditions and concerns. It also helps them to create supportive relationships (Salameh et al., 2012).

Ades et al. (2013) has suggested that health education for CHF patients can be part of cardiac rehabilitation program and in combination to the exercise training and educational counselling it can facilitate for promotion and monitoring of self-management skills in order to improve the quality of life. Other study pointed that nursing direct health education may incearse the QOL by increasing activity tolerance, self-management, life-style modification and diet and medication compliance (Kutzleb and Reiner, 2006).

6.3.2 End of life communication

As number of chronic heart failure increasing due to aging population and advanced therapies, the rate of surviving patients is increasing as well with poor prognosis. Chronic heart failure known as vital diseases and at the end stage patients are facing death. Study of Whellan et al. (2014) has discussed the need for special type of communication at this point of CHF patient's life such end of life communication. Study suggests that incorporation with other treatments and interventions end of life discussion should start early in the course of treatment. This step is essential as CHF are in danger of deterioration in their condition or they are prone to sudden death. Whellan et al., (2014) defined the basic steps for effective end of life communication as using clear and simple language, avoidances of euphemism, and clearly defining any medical or tech-

nical term as they are used to ensure that patients understood the entire situation. the foundation of patient-center communication methodology was recommended by this study **(**Appendix 3).

7 DISCUSSION

This literature review supports present evidence about the negative effects of chronic heart failure on the quality of life of elderly people (Neiminen, 2014). The study findings reveal that nursing interventions to enhance the quality of life of elderly people suffering from CHF are very fundamental and it based on three concepts cardiac rehabilitation, psycho-socail rehabilitation and effective communication. In the care of elderly people with CHF nurses can introduce cardiac rehabilitation program such Tai Chi meditation, dancing therapy and/ or group exercise training (Ades et al., 2013; Sun et al.,

2014; Neto et al., 2014; 2010; Hui et al., 2006). All of these activities have shown to be effective in improving the physiological factors of chronic heart failure heart and self-care management, it reduces blood pressure, increases cardiac function, improves peak VO2 and enhances general quality of life aspects. Another intervention that nursed should take on consideration while caring for elderly people with CHF is to support the psycho-socail needs. Study finding adds important evidence of providing psycho-socail rehabilitation to the elderly, their family and /or their care giver in general. Interventions such as conducting the face to face interview to assess the psycho-socail needs of CHF patients or proving relaxation therapy would help to reduce their socail isolation, depression, reduce mental distress and enhance their mental well-being and general quality of life as well. In addition to the psycho-socail support, the nurses have to consider the spiritual needs of elderly people with CHF at end of life stage. Spiritual need can be met by providing individual assessment and support to reach a peaceful end of life journey (Delaney et al., 2012). Finally, nurses need to use effective communication techniques that would enhance the delivery of effective education and promote health knowledge especially among elderly people. Introduction of modern technology such e. learning can be useful and may facilitate the self-monitoring, health promotion and the modification of life style and eventually enhances the quality of life of CHF people. End of life communication is considered as a new approaches and it is recommended as part of holistic care and palliative care in end of life stage such as the foundation the patient-center communication methodology (Whellan et al., 2014).

7.1 Relating the finding to theoretical framework

The author of this study has chosen Register theory of Generative Quality of Life for Elderly (GQOLE) after careful consideration and evaluation to be the background theory. Register theory is suitable for the care of elderly people and is it aboard theory that can accommodate wide range of contexts such chronic heart failure condition. In this case the nursing care of elderly people with chronic heart failure was tested against the

six concepts of connection of the Register theory to assess its outcome on the quality of life.

Connected metaphysically: According to Register theory in order elderly people to be connected metaphysically nurses need help them to improve their self-care, self-esteem and their self-confidents. Based on the study findings nursing interventions such cardiac rehabilitation including exercise therapy and healthcare professional counselling in corporations with psychosocial rehabilitations such the face to face therapy, relaxation therapy would increase quality of life among elderly with CHF by improving the cognition, self-satisfaction and their self-esteem (Ades et al., 2013; Samartzis et al., 2013; Yu et al., 2009).

Connected Spiritually: Based on study findings nursing interventions introducing blessing CD, mindful meditation to enhance self –discover, Heart Touch technique used to enhance spirituality and the sense of connection to other, finally environment/prayer technique to enhance the healing environment and improve the interpersonal aspects of spirituality, all of these interventions have a positive impact on the CHF elderly quality of life and enhances their inner peace (Delaney et al., 2012). Also as part of spirituality nursing care for the end of life care has shown to create a sense of acceptance among CHF in terminal stage, using effective communication and discussing the available options and patient's choices (Whellan et al., 2014).

Biologically connection**:** Nursing interventions that support the physiological part of the CHF elderly connection are suggested by (Hui et al., 2006; Kutzleb and Reiner, 2006; Britz and Dunn, 2010; Ades et al., 2013) such functional capacity activities including physical performance of self-care, activities of daily living, independent mobilization, the capacity to participate in recreational and occupational activities affect the heart failure patient's quality of life in many domains. Also the adaption of Tai Chi technique had shown reduction in physiological factors such Blood Pressure, Body Mass Index, and in the central obesity with CHF elderly. Dancing therapy added a beneficial effect on the CHF patient biological health and quality of life. Environmentally connected: Nursing intervention that highlighted by Delaney et al. (2012) had pointed the effect of a multisensory experience that evoked by the echo-awareness meditation when elderly people are connected to their environments at a new level such focusing on the light and shadows, smelling the fresh air and flowers.

Connected to the society was best related by the study finding that disused the important of the nursing intervention such introducing the E. learning technology, nursing education and using community dwelling rehabilitation activity to help chronic heart failure elderly to remain connected to their healthcare system, their society and be updated with every new knowledge and information that would elevate their QOL (Hui et al., 2006; Salameh et al., 2012; Kutzleb and Reiner, 2006).

8 CONCLUSION

In this qualitative literature review, study findings concluded that chronic heart failure is incurable diseases and it is mainly a diseases of older age population 65 years and above. Chronic heart failure effect negatively the quality of life of elderly patients in all aspects of their life such as physically, spiritually, psychologically and socially. Enhancing and improving the quality of life for this group of patient suffering of CHF is based on providing total nursing care management including all aspects of patient's life. Introduction of cardiac rehabilitation program such Tia Chi, dancing, regular exercise that may help in improving the physical performance and the functionality of CHF patients is fundamental. Also. the need of psychological support such face to face interview and telephone counseling may help to reduce depression, anxiety and maintain mental health well-being intact for elderly with CHF. Spiritually need to evaluated and individual care to introduced based on the elderly people personal preferences and needs. Finally, communication as part of the total care may elevate the level of care and improve patients and heath care professional interaction to achieve maximum care. Therfore, open discussion about the nursing care plan should be started as early as chronic heart failure is diagnosed to ensure that end –of –life care is mentioned and patient choices are considered.

8.1 Critical analysis and recommendations

Various aspects of a study trustworthiness issues have been described in the qualitative researches such as creditability, dependability and transferability (Graneheim and Lundman, 2004). In order to achieve creditability to study and to ensure how well the data refer to the study aim and focus, the author has maintained the study creditability by selecting the most suitable academic articles that are relevant and answering the research inquires. Also, by illustrating of how well the categories and sub-categories of the study were formulated to cover the data findings. Furthermore, the extent to which the data change over time and if any alteration were made during study process was discussed by the author to attain dependability. Study finding transferability to other context or set-ting is suggested by the author in relation to the study aim.

In this study paper the author tried to achieve the optimum level of validity and reliability. As validity refers to methods used to evaluate the research variables and to reach the

study aim. The aim is to shed light on the available knowledge and understanding of the current nursing interventions that enhance the quality of life for elderly people suffering from chronic heart failure. Reliability refers to which extend the study data collection process was accurate and the result were consistent (Graneheim and Lundman, 2004). In this study reliability is achieved best by using scientific and academic data from the data bases such the one provided by the university of Arcada of applied Sciences. Study author believe that the study would be much better executed, if the author had previous expertise in writing academic paper, the lack of knowledge and experiences may be shown during the writing process. In addition to this the concept of quality of life would be criticized for being wide and abroad concept that been studied for decades. Many quality of life theories and models were evaluated and studied from different theoretical perspective before the author decided to adapt to the Register theory of generative quality of life for the elderly people. Another major limitation that faced this study was the unavailability of the some good and specific articles that were available only through subscription or membership to certain journals, also the limitation of the publication to the year of 2000 to ensure that recent studies and evident based knowledge were included. Although of unavailability of certain data the author tried her best the to utilize the available resources and she is well satisfied with study final results. The result of study was based on global sample rather than one group and issues such as confidentiality, informed consent and subjective review are not applicable to this study, since the study is a literature review of academic databases that were previously published.

In recommendation, the study author suggest further researching on the effect of chronic heart failure on the quality of life of elderly people is crucial and important. Especially within the local sample of Finland to enhance the nursing care for these group of population suffering from chronic heart failure. However, the study findings have recommended that as part of the total care for chronic heart failure it is useful to combine the cardiac rehabilitation program and the psychosocial rehabilitation interventions and the effective communication to provide optimal care and improve the quality of life of the elderly people.

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Appendix

Appendix 1: List of chronic heart failure causes

Table 1: Causes of heart failure*

- **Ischaemic heart disease.**
- **Hypertension.**
- **Arrhythmias.**
- **Valve disorders.**
- **Myocarditis.**
- **Alcohol-induced cardiomyopathy.**
- **Chemotherapy-induced cardiomyopathy.**
- **Genetic cardiomyopathies.**
- **Amyloidosis.**
- **Sarcoidosis.**
- **Metabolic disorders.**

***This is a shortened list – see American College of Cardiology Foundation/American Heart Association (2013) or McMurray et al (2012) guidelines for fuller lists**

APPENDIX 2: Medications for heart failure

Medscape® www.medscape.com

Drug Sympathomimetics	Mechanism of Action	Outcome
Dopamine	α_1- and α_2-stimulation β_1-stimulation	Decreased norepinephrine release Increased positive inotropy Peripheral vasoconstriction Venoconstriction
Dobutamine	β_1-stimulation β_2-stimulation α_1-stimulation	Increased positive inotropy Peripheral vasodilation Peripheral vasoconstriction
Norepinephrine	β_1-stimulation α_1-stimulation	Increased cAMP Increased positive inotropy Peripheral vasoconstriction
Epinephrine	β_1-stimulation β_2-stimulation α_1-stimulation	Increased positive inotropy Peripheral vasodilation Peripheral vasoconstriction
Isoproterenol	β_1-stimulation β_2-stimulation	Increased positive inotropy Increased heart rate Peripheral vasodilation
Vasodilators		
Nitroglycerin Nitroprusside	Nitric oxide donors	Increased cellular cAMP Venous and arterial vasodilation
Enalaprilat	ACE inhibition	Venous and arterial vasodilation Natriuresis
Hydralazine	Arteriolar relaxation	Arteriolar vasodilation
Phosphodiesterase Inhibitors		
Milrinone	Phosphodiesterase III inhibition	Increased cellular cAMP Increased positive inotropy Peripheral vasodilation
Natriuretic Peptides		
Nesiritide	Binding to guanylate cyclase receptor	Increased cellular cGMP Natriuresis Diuresis Vasodilation Decreased endothelin and aldosterone production Positive lusitropy Decreased sympathetic activity Decreased connective tissue proliferation[8] Decreased inflammation[8]

β_1=beta-1 receptor; β_2=beta-2 receptor; α_1=alpha-1 receptor; α_2=alpha-2 receptor; cAMP=cyclic adenosine monophosphate; ACE=angiotensin-converting enzyme; cGMP=cyclic guanosine monophosphate. Adapted with permission from Tallaj JA, Bourge RC. The Management of Acute Decompensated Heart Failure 2003. Available at: http://www.fac.org.ar/tcvc/llave/c038/bourge.htm. Accessed July 8, 2004; 3rd International Congress of Cardiology on the Internet 2003. Available at: http://www.fac.org.ar/tcvc/index.html. Accessed July 8, 2004.