Evaluation of the Quality of Life of the Patients with Heart Failure in Ahvaz Teaching Hospitals

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ABSTRACT

In all cases, Heart Failure (HF) affects the mental health and consequently the QoL of patients to a varying extent. This study aimed to evaluate the quality of life of patients with heart failure in Ahvaz. The present descriptive-analytical study was performed on 220 patients admitted to the cardiac ward of Golestan Hospital in Ahvaz during 2020. Sampling was not performed due to the limited statistical population. Data was collected using a 36-item QoL questionnaire after determining their validity and reliability. The data was analyzed by SPSS 22 software using analysis of variance, t-test, and Pearson correlation coefficient at a significance level of 0.05.

29.2%, 39%, and 8.31% of the subjects had good, moderate, and poor QoL. Men and women were different significantly in dimensions of general health and physical pain, with women having a lower QoL in these two subscales (P < 0.05). Subjects attained the lowest (16.1 ± 11.2) and the highest (41.1 ± 14.2) mean scores in physical problems and general health dimensions, respectively. QoL and mental health problems in HF patients necessitate conducting qualitative research on ways to improve QoL and mental health of these patients. Besides, comparative studies on these patients are necessary before and after implementing nursing models to care for and support HF patients.

Keywords: QoL, Mental health, Heart failure, Ahvaz.

INTRODUCTION

Cardiovascular diseases and related complications are some of the most important causes of death in industrialized and developing countries, including Iran [1], where conducted studies reported a prevalence of 2.32% for cardiovascular diseases [2]. HF is known as the common final consequence of all heart disorders [3]. The prevalence of this disease has increased, firstly, due to elevated life expectancy leading to an elevation in chronic diseases (e.g. chronic HF), and, secondly, because of progress in the treatment of heart disease [4]. A report by the American Heart Association indicates that about 3.7% of all deaths from cardiovascular diseases are caused by HF. By 2030, more than 3.23 million people are predicted to decease annually because of cardiovascular diseases [5], and the prevalence of HF to rise by 25% [6].

HF is often referred to as Congestive Heart Failure (CHF), i.e. the inability of the heart to pump sufficient blood to meet the needs of tissues for oxygen and nutrients [4]. The disease symptoms and the consequent complications gradually cause limitations in the routine lives of patients, thereby affecting their QoL [7]. Among heart diseases, HF equally overshadows patients' mental, social, and psychological health and, consequently, their perception of health, in addition to the physical consequences. An elevated lifetime of HF patients along with the

profound effects of this disease on their individual and social life and their families, as well as its chronic, progressive, and irreversible nature, are among the most important reasons for the decline in QoL of these patients. As such, most studies reported that the quality of life in patients with HF is lower than that of other chronic diseases [8-12]. Declined QoL not only hurts social, family, and work-life as well as on leisure activities but also increases the risk of hospitalization and death due to this disease; QoL, therefore, accounts for a predictor of HF consequences [13].

In addition to assisting ineffective treatment, access to QoL information also plays an important role in promoting support programs and rehabilitation measures [14]. QoL is an indicator of physical and social activities as well as mental health being considered as one of the important components of health. In all cases, HF affects the mental health and consequently the QoL of patients to a varying extent. The concept of QoL, mental health, and related factors in HF patients has been studied scarcely in Iran, and consequently, this group of patients have been less studied by psychological interventions. Therefore, this study aimed to evaluate the quality of life of patients with heart failure in Ahvaz.

MATERIALS AND METHODS

The present descriptive-analytical study was performed on 220 HF patients admitted to the cardiovascular ward of Golestan Hospital in Ahvaz during 2020. The study population consisted of all HF patients hospitalized at the cardiovascular ward of Golestan Hospital in Ahvaz. Sampling was not performed due to the limited statistical population. Inclusion criteria were definitive diagnosis of HF (HF diagnosis in the patient's medical record), at least six months passed since the diagnosis of patients being hospitalized again for medical reasons, fluency in Persian, no mental retardation, and over 18 years of age. Data was collected using three demographics, SF-36 QoL, and GHQ-28 mental health questionnaires.

The SF-36 QoL questionnaire consists of 36 questions in eight subscales of physical function, physical limitation, physical pain, general health, vivacity, social functioning, mental problems,

and mental health, which are classified into two scales of physical health and mental health. In other words, physical health comprises the total questions of subscales of physical function [9], physical limitation [4], physical pain [2], and general health [5]. Mental health also includes the total questions of subscales of social performance [2], mental problems [3], mental health [5], and vivacity [4]. One more question also examines a change in one's health status compared with the previous year. The scores of each scale vary from zero to 100, with zero reporting the worst and 100 being the best in the intended scale [15].

Molavi confirmed its validity with r = 0.91 and reported reliability of 0.90 using Cronbach's alpha coefficient [16]. The data was analyzed by SPSS 22 software using descriptive statistics and analysis of variance (ANOVA), t-test, and Pearson correlation coefficient at a significance level of 0.05.

RESULTS AND DISCUSSION

The distribution of frequency percentage of demographic characteristics for the subjects showed that 45% and 55% of the population were males and females, respectively. Married, single, and deceased spouses comprised 75%, 12%, 13% of the participants. Dropouts and above school diploma were recorded in 63% and 37% of the subjects, respectively. Participants with and without a history of hospitalization were 44% and 66%, respectively, and 64% and 36% had incomes below and above two million Tomans, respectively. The dimensions of QoL (mean ± standard deviation) are shown in **Table 1**.

Table 1. Mean and Standard Deviation of Dimensions of Quality of Life

Variables	Dimension	Mean	Standard Deviation
Quality of Life	General Health	41.3	±14.2
	Physical Function	31.1	±13.3
	Physical Problems	16.1	±11.2
	Mental Problems	33.3	±14.8
	Social Performance	32.1	±10.1
	Physical Pain	39.5	±11.6
	Cheerfulness	37.3	±20.1
	Mental Health	40.4	±17.2

According to **Table 1**, 29.2%, 39%, and 8.31% of the subjects had good, moderate, and poor QoL. Subjects attained the lowest (16.1 ± 11.2) and

the highest (41.1 ± 14.2) mean scores in physical problems and general health dimensions,

respectively. **Table 2** represents the correlation between gender and the dimensions of QoL.

Table 2. Correlation between Gender and Dimensions of Quality of Life

Variable	Dimension	Female		Man		P-Value
		Mean	Standard Deviation	Mean	Standard Deviation	
Quality of Life	General Health	11.1 ±1.2		11.3 ±4.6		0.000*
	Physical Function	11.1 ±2.3		20.1 ±5.1		0.43
	Physical Problems	6.5 ±3.1		16.1 ±3.2		0.32
	Mental Problems	5.3 ±4.8		2.3 ±7.3		0.005*
	Social Performance	15.1 ±10.2		9.3 ±5.3		0.33
	Physical Pain	9.4 ±9.6		10.1 ±1.6		0.000*
	Cheerfulness	7.3 ±5.6		12.4 ±15.1		0.45
	Mental Health	12.6 ±8.2		11.3 ±11.2		0.003*

As shown in **Table 2**, men and women were different significantly in dimensions of general health and physical pain, with women having a lower QoL in these two subscales (P < 0.05). However, the QoL of women in dimensions of mental problems and mental health was significantly higher than that of men (P < 0.05).

The findings of the present study showed that women comprised most of the studied patients, which is not in line with those of most studies [17-19], but it is consistent with a few limited studies in which the frequency of females was higher [20, 21]. Although HF is relatively less common in women, at least half of the cases occur in women because they have a longer life expectancy [22].

The present findings demonstrated moderate and low QoL in the majority of subjects, which corresponds to those of Phillip [23] and Gavin [24]. Phillip reported that most patients with HF described poor QoL, which could be attributed to limitations created in patients' life, including the inability to perform many daily life activities compared with other people. Additionally, HF had the most negative effect on our patients' mental health, in particular on social functioning, which is in agreement with those of Mardani [25] and Salati [26]. Supportive resources in disease conditions are considered a high necessity for survival and adaptation, and heart patients living alone have a poor QoL [27]. Compared with other chronic diseases, HF leads to the destruction of one's functional roles in social, family, and marital relationships and reduces job performance due to disabling complications and consequent severe limitations in life.

According to the research findings, there was a significant difference between the two dimensions of general health and physical pain between men and women. It was found that life stress and deprivation of emotional support put women with heart failure at greater risk of declining quality of life than men. Women have lower vitality and physical function than men, and this difference becomes more pronounced after one year of follow-up, because women are more likely than men to suffer from problems such as sleep disorders, emotional problems, decreased energy, strength, and illness [28].

CONCLUSION

The QoL of most subjects was at a moderate level. Therefore, the QoL problems in HF patients necessitate conducting qualitative research on ways to improve QoL of these patients. Besides, comparative studies on these patients are necessary before and after implementing nursing models to care for and support HF patients.

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