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The Effect of Sexual Satisfaction on the Quality of Life on Patients with Cardiovascular Disease

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ABSTRACT

*Objective: This study is aimed to assessment the relationship between sexual satisfaction and quality of life(*QQL*) in patients with cardiovascular disease at the city of Ilam. Background: Heart disease is a leading cause of mortality and reduced quality of life(*QQL*). Lack of sexual satisfaction reduces health, longevity and life satisfaction, and also leads to disorders in the growth and development of couples and their sexual relationship. Method: In this cross-sectional study 300 cardiovascular patients at Ilam were selected by using convenience sampling method. The instrument used was Larson sexual satisfaction questionnaire and 36- SF quality of life survey. Data were analyzed using spss21 as well as descriptive statistics (mean and standard deviation) and inferential statistics (t-test and ANOVA). Ethical considerations: moral considerations in this study include obtaining the permission of hospital officials to conduct the study, explaining the purpose and methodology of the study for each of the subjects; informed consent was also obtained from each subject for research. Findings: Results showed that the mean and standard deviation of the quality of life and sexual satisfaction are 59.17± 22.53 and 49.15± 6.03, re spectively. The highest score of the quality of life of heart disease was related to public health and the lowest score belonged to physical pain. Pearson correlation test showed a significant relationship between quality of life and sexual satisfaction. Also, patients with hypertension had the greatest sexual satisfaction and it was lowest in patients with myocardial infarction. Conclusion: Necessary interventions to increase sexual satisfaction in cardiovascular patients can increase the quality of their life.*

Keywords: Sexual satisfaction, quality of life, cardiovascular disease

INTRODUCTION

Heart disease is considered as the most common chronic illness and cause of death in adults around the world and heart failure is known as the final track to all cardiac disorders [1]. In Iran, heart diseases are the first cause of mortality in individuals older than 35 years. It is estimated that the disease burden in a year due to cardiovascular disease over 5.1 million people in the country i.e. totally 1.4 percent of total years of living is lost in the country due to mortality and morbidity from cardiovascular disease [2].

In the Eastern Mediterranean countries, including Iran, heart disease is an important health and social problem and its consequences are rapidly increasing [3]. According to the World Health Organization, 41.3 percent of all deaths in 2005 in Iran was due to cardiovascular diseases and is predicted that this amount rises to 44.8 percent by 2020. Today, Heart disease is one of the main causes of death in people older than 35 in Iran [4, 5].

Heart failure is associated with symptoms such as shortness of breath, dizziness, angina, edema, and ascites. These symptoms lead to into lerance toward activity and create some changes in the patient's lifestyle that affect patient satisfaction and quality of life [6]. QQL is the result of the treatment in the view of patients from extended emotional, social and functional areas. Today, QQL is a fundamental index and affects the person in various

dimensions such as the physiological aspects of a person's performance; hence it is important to pay attention to its different aspects in order to properly evaluate one's life [7]. The World Health Organization (WHO) defines QQL as the perceptions of a person from his own life and attention to the culture where he lives and the relation between the perceptions with expectations, standards and priorities [8].

Sexual activity in humans, in addition to being instinctive, is vital and as time goes by other religious, mystical, and historical concepts are attached to it [9]. Sexual activity as an important aspect of life is affected by personal characteristics, interpersonal relationships, family circumstances, socio-cultural conditions, environment and records of sexual activity of the couple, and one's own physical and mental health and hormonal status [10]. Sexual satisfaction is a pleasant feeling of the type of sexual relation and one's ability to make mutual pleasure. Sexual satisfaction is the feeling about their bodies, interest in sexual activity, the need to communicate with sexual partner and the ability to become satisfied of sexual activity [11]. Lack of sexual satisfaction reduces the health, longevity and life satisfaction; leads to disorder in growth and development of couples and disrupts sexual relationship [12, 13]. Poor quality of life is associated with increased illness, increased number of bed days, reduced activity and survival of patients. It also contributes to reduced social activities, eliminating job security, disruption of interpersonal relationships and family roles [14]. Given the high prevalence of cardiovascular disease and the importance of sexual satisfaction and QQL, this study aimed to assessment the relationship between QQL and sexual satisfaction in patients with cardiovascular disease in the city of Ilam.

MATERIALS AND METHODS

In these cross-sectional study, 300 patients with cardiovascular disease Ilam in the year 2016 were available for sampling. The instruments consisted of two parts. The first part includes Larson sexual satisfaction, and 36- SF QQL questionnaire is the second part of it. Larson sexual satisfaction questionnaire consisted of 25 items with 13 questions that are scored in reverse. The questions are answered based on five-item Likert scale (1 = never to 5 = always). The total score of questionnaire is 25 to 125, where 25-50 point is lack of sexual satisfaction, 51-75 is low sexual satisfaction, 76-100 moderate sexual satisfaction and 101-125 high sexual satisfaction [15]. The questionnaire in the study of Taqadosi et al. (2015) Cronbach's alpha of 0.91 was obtained [13]. In this study, Cronbach's alpha of 0.89 was obtained.

36- SF Quality of Life Questionnaire has 36 questions and eight subscales related to health that includes role limitations due to physical health (4 questions), physical function (10 questions), energy (9 items), mental health (4 items), role limitations due to emotional health (3 questions), social functioning (2 questions), bodily pain (2 questions), and general health (2 questions). Any questions has at least two and a maximum of 6 options and the maximum scores for each section or sub-scale is 100, and the minimum score is zero; and the higher score indicates better QQL. The quality of life was considered desirable (71 to 100), some what desirable (31 to 70) and undesirable (0 to 30). In this questionnaire, general health, bodily pain and physical limitations, form the general physical health dimension and dimensions of social functioning, emotional limitations, mental health, and energy form the general mental health [16]. Cronbach's alpha coefficient of the questionnaire in the study of Bastam et al (2015) was reported 0.96. By daily visit to the CCU and Post CCU at men and women wards of Shahid Mostafa Khomeini Hospital, the researcher identified patients with cardiovascular disease that were eligible to participate in the study, and completed sexual satisfaction and quality of life questionnaire by interview. Inclusion criteria of the study were age older than 18 years, the ability to speak, having cardiovascular disease (heart failure, hypertension, acute coronary syndrome, myocardial infarction, and angina), living in Ilam and informed consent to participate in research.

To analyze the data, SPSS statistical software (version 17) was used. The data were described by frequency tables, mean and standard deviation, and for data analysis one way ANOVA and independent t-test were used. The significance level was considered less than 0.05.

RESULTS

300 people participated in this study and the average age of the subjects was 48.28±6.32. Most of the subjects were female (53.3 percent), illiterate (52 percent), income from 500 to 1 million a month (34.7 percent), patients with acute coronary syndrome (29.7 percent) and without history of hospitalization (30.3 percent), respectively (table 1). The mean and SD of quality of life and sexual satisfaction were 59.17±22.53 and 49.15±6.03 respectively. The highest mean score of QQL in different types of heart diseases is related to general health dimension and the lowest was related to physical pain (Table 1). Pearson correlation test has a significant relationship between sexual satisfaction and quality of life (Table 3).

Table 1- the mean and SD of sexual satisfaction and quality of life scores based on demographic features of cardiovascular patients

Variable	Classes	N(%)	quality of life	p	sexual satisfaction	p
Gender	Male	160(53.3)	49.78±6/29	.31	61.50±23/90	.04
	Female	140(46.7)	48.94±8/09		56.51±20/56	
education	illiterate	156(52)	48.71±6/72	.07	59.41±24/77	.16
	Diploma and low literate	110(36.7)	50.63±8/34		60.89±21/81	
	Collegiate	34(11.3)	48.45±4/23		52.52±9/54	
income	Less than 500 thousand Rials	73(24.3)	48.52±4/92	.42	56.09±18/56	.09
	500 to 1 million	104(34.7)	49.37±8/80		57.38±21/38	
	More than 1 million	123(41)	49.91±6/80		62.52±25/17	
job	Unemployed	133(44.3)	49.12±8/27	.57	57.04±20/91	.14
	Practitioner	167(55.7)	49.59±6/25		60.87±23/66	
Addiction	Yes	48(16)	44.55±6/03	.001	44.64±16/73	.001
	No	252(84)	50.02±5/62		61.94±22/45	
chronic disease	Yes	79(26.3)	41.71±3/23	.001	37.59±7/37	.001
	No	221(73.7)	51.80±4/33		66.88±21/06	
Hospitalized	No admission	91(30.3)	55.22±3/32	.001	84.96±21/27	.001
	1or 2 times	66(22)	52.35±1/16		59.84±4/07	
	3or 4 times	57(19)	46.64±2/58		49.14±3/65	
	More than 4 times	86(28.7)	41.92±3/14		38.02±7/24	
Kind of disease	heart failure	37(12.3)	54.87±1/82	.001	77.70±20/93	.001
	hypertension	63(21)	55.11±2/79		79.90±21/21	
	acute coronary syndrome	110(29.7)	46.71±1/37		49.38±4/32	
	myocardial infarction	71(23.7)	41.36±3/25		36.81±7/54	
	angina	73(23.3)	53.71±2/56		70.87±18/41	

Results of Table 2 shows that among the types of heart disease, highest score of life quality belonged to heart failure and the lowest was related to myocardial infarction. According to table, the highest QQL was in patients with hypertension and the lowest was in acute myocardial infarction patients.

Table 2- mean and standard deviation of QQL **dimensions based on type of disease in cardiovascular patients in Ilam**

Dimension Quality of life	myocardial infarction	acute coronary syndrome	hypertension	angina	heart failure
Physical Function	42.63±5/18	46.39±5/32	59.12±6/07	51.47±8/62	50.78±9/08
Physical role	35.32±5/58	44.89±4/39	66.87±4/37	36.67±3/85	36.48±3/94
Bodily pain	48.02±7/54	37.14±6/74	57.39±7/09	45.35±6/78	47.78±6/84
general health	38.57±5/76	67.32±7/58	64.93±3/44	63.12±6/68	60.75±5/82
Vitality	49.57±9/55	48.28±2/91	51.41±10/36	61.07±2/72	60.48±2/25
Social function	43.54±9/28	35.67±2/57	51.57±4/98	59.92±10/02	60.55±3/96
Emotional role	40.04±8/76	56.40±2/13	47.31±10/64	53.65±2/14	50.37±2/79
mental health	41.45±8/90	37.52±2/51	42.22±9/32	58.42±9/24	71.67±5/42
Quality of life	41.35±3/25	46.70±1/37	55.10±2/79	53.71±2/56	54.86±1/82

Table 3- the correlation between QQL and the dimensions of sexual satisfaction in patients with cardiovascular disease

Dimension Quality of life	M±SD	Correlation	
Physical Function	49.39±8/72	P= .001	r=.45
Physical role	45.11±12/72	P= .001	r=.44
Bodily pain	44.41±10/58	P= .001	r=.60
general health	58.65±12/91	P= .001	r=.46
Vitality	52.45±8/41	P= .001	r=.48
Social function	47.18±11/52	P= .001	r=.55
Emotional role	49.51±9/07	P= .001	r=.30
mental health	46.44±13/58	P= .001	r=.46
Quality of life	49.15±6.03	P= .001	r=.90

the correlation between sexual satisfaction and QQL was significant (P= 0.001) and patients who had higher sexual satisfaction had higher QQL.

Table 4-average scores of quality of life in terms of sexual satisfaction in patients with cardiovascular disease

Variable	M±SD	p
Lack of sexual satisfaction	43.64±3/57	0.001
Low sexual satisfaction	51.26±2/52	
Moderate sexual satisfaction	55.43±1/02	
High sexual satisfaction	58.70±1/03	

DISCUSSION

The findings of our study showed that the QQL for most patients with acute coronary syndrome(ACS) was low and in these patients the mean of QQL score was highest in general health dimension and lowest in social functioning. In a study by Taqadosi et al. (2014) 50% of patients with ACS, had high and good QQL, and 67.4 percent of patients had a high sexual satisfaction. Also, sexual satisfaction and quality of life were directly and significantly correlated and people with more sexual satisfaction showed better QQL [13]. Dessotte et al. in a study in Brazil on patients with acute coronary syndrome found that the highest score for QQL was related to social functioning with an average of 86 and the lowest was related to health problems, with an average of 57 [17].

The study showed that QQL for the majority of patients with hypertension was moderate and the highest score of QQL was related to the physical functioning and mental health was the lowest. In the study of Zeighami Mohammadi et al (2009) on women with hypertension, more than two-thirds of women with high blood pressure, had average and poor sexual performance. Also there were disorders in all aspects of sexuality, sexual stimulation or arousal, vaginal moisture, orgasm, sexual satisfaction and pain, [18]. Numerous studies have proven the link between blood pressure and sexual function [19, 20]. It seems that with sexual stimulation, parasympathetic signals send more blood flow to the pelvic and breast and by rising mucus secretion, vagina gets prepared for sexual activity. But in women with high blood pressure, vascular stenosis decreases blood flow and therefore causes sexual disorders [21, 22].

The present study showed that in patients with heart failure, quality of life was average in most of them and the highest score of quality of life was related to mental health and the lowest was related to the physical functioning. In a study by Abedi et al. (2010), and the study of Yousefi et al. the majority of patients with heart failure had low QQL and the highest score and the lowest score were related to mental health and physical health issues respectively [23, 24]. In the study of Shojaiee et al. Most of the patients with heart failure had relatively favorable QQL [25]. Heidarzadeh et al. studied the QQL in patients with heart failure and found that 50.4 percent were unfavorable [26].

The findings ofour study showed that in patients with heart failure, QQL was low in most of them and the highest score of QQL was related to energy and vitality and the lowest was related to the physical functioning. In the study of Abdullahi et al (2008) on patients with heart failure, most patients had low quality of life. The highest score of quality of life was related to general health dimension and the lowest was related to general health [27]. Rejeh et al. in a study on patients with myocardial infarction reported the QQL lower than the average in most patients. The highest mean score of QQL was related to social functioning with an average of 66 and the lowest was physical problems with an average of 20 [28]. Dehkordi et al. in this study in patients with heart failure, most patients had a poor QQL [29]. In the study by Bagheri et al (2013) the majority of patients with myocardial infarction had relative sexual satisfaction [30].

This study showed that in patients with angina, QQLfor the majority of them was moderate and the highest QQLscore was related to general health and the lowest was related to the physical functioning. TaheriKharameh et al. in a study on patients with angina the highest score of QQLwas related to social functioning with an average of 59 and the lowest score belonged to the role limitations related to physical problems with the mean of 33.12 [31].

In the study of ZeighamiMohammadi et al (2010) on cancer patients, 60% of patients had the sexual dysfunction and the highest prevalence was related to inciting sexual desire and sexual stimulation. There was also a significant correlation between QQLand sexual function [32]. In the study of Alavian et al. (2007) on patients with chronic viral hepatitis, the QQLhad a statistically significant increasing relation with all aspects of marital satisfaction [33]. In a study by phan et al (2010) on the patients after heart transplant, the results showed that 80% of men and 50% of women had sexual dysfunction, and this problem related with physical and mental health [34]. In the study by Bossini, et al (2014) sexual dysfunction affect the QQLby psychological disorders [35]. In the study by Nekuiefard et al. on women with breast cancer, the disease affects the marital relationship and satisfaction with treatment and also the duration of surgery and type of surgery for patients with breast cancer was effective on their sexual satisfaction [36]. In the study of NajarianNoushabadi et al (2012) on patients with irritable bowel syndrome, a statistical correlation between sexual dysfunction and dyspareunia subscale and the quality of life was observed [37]. It seems that the disease has an impact on sexual satisfaction and reduced QQL in these patients.

CONCLUSION

Regarding the related between sexual satisfaction and QQL in patients with cardiovascular disease, it is recommended that by appropriate interventions increase sexual satisfaction and provide the basis for increasing the QQL of these patients.

REFERENCES

[1] Rafii F, Shahpoorian F, Naasher Z, Azarbaad M, Hosseini F. The importance of learning needs of CHF patients from patients' and nurses' perspective. Iran Journal of Nursing. 2009;22(57):19-30.
[2] Beyranvand M-R, Lorvand A, Parsa SA, Motamedi M-R, Kolahi A-A. The quality of life after first acute myocardial infarction. Pajoohandeh Journal. 2011;15(6):264-72.
[3] Khoosfi H, Monirpoor N, Birashk B, Peighambari M. A comparative study of personality factors, stressful life events, and social support in coronary heart patients and non-patients. Contemporary Psychology. 2007;2(3):41-8.
[4] Hosseinifar R. Epidemiology principle and control of disease for nurses. Tehran, Boshra Puplication. 2004:35-56.
[5] Jemal A, Bray F, Center MM, Ferlay J, Ward E, Forman D. Global cancer statistics. CA: a cancer journal for clinicians. 2011;61(2):69-90.
[6] Dunderdale K, Thompson DR, Miles JN, Beer SF, Furze G. Quality-of-life measurement in chronic heart failure: do we take account of the patient perspective? European journal of heart failure. 2005;7(4):572-82.
[7] Ahmadi F, Salar A, Faghihzadeh S. Quality of life in Zahedan elderly population. Hayat. 2004;10(3):61-7.
[8] Ware Jr JE. SF-36 health survey update. Spine. 2000;25(24):3130-9.
[9] Kohanzad S. About impotence in men. Tehran: Danesh Publications. 1994;9.
[10] Fourcroy JL. Female sexual dysfunction. Drugs. 2003;63(14):1445-57.
[11] Bakhshayesh A, MORTAZAVI M. The relationship between sexual satisfaction, general health and marital satisfaction in couples. 2010.
[12] Higgins JA, Mullinax M, Trussell J, Davidson Sr JK, Moore NB. Sexual satisfaction and sexual health among university students in the United States. American Journal of Public Health. 2011;101(9):1643-54.
[13] Taghadosi M, GHANBARI AL, Gilasi HR, GHANBARI AM, TAHERI KZ. The relationship between sexual satisfaction and quality of life in patients with acute coronary syndrome. 2015.
[14] Bucholz EM, Rathore SS, Gosch K, Schoenfeld A, Jones PG, Buchanan DM, et al. Effect of living alone on patient outcomes after hospitalization for acute myocardial infarction. The American journal of cardiology. 2011;108(7):943-8.
[15] Larson JH, Anderson SM, Holman TB, Niemann BK. A longitudinal study of the effects of premarital communication, relationship stability, and self-esteem on sexual satisfaction in the first year of marriage. Journal of sex & marital therapy. 1998;24(3):193-206.
[16] Sadeghi H, Azizzadeh Forouzi M, Haghdust A, Mohammad Alizadeh S. Effect of implementing continuous care model on sleep quality of hemodialysis patients. Iranian Journal of Critical Care Nursing. 2010;3(1):12-8.
[17] Dessotte CAM, Dantas RAS, Schmidt A, Rossi LA. Health-related quality of life in patients admitted after a first episode of acute coronary syndrome. Revista latino-americana de enfermagem. 2011;19(5):1106-13.
[18] Zeighami Mohammadi S, Ghaffari F. Sexual dysfunction among hypertensive womenreferred to health centers of Ramsar and Tonekabon (2009). Modern Care Journal. 2012;8(4):212-20.
[19] Kütmeç C, Yurtsever S. Effects of sexual function of essential hypertensions in women. European Journal of Cardiovascular Nursing. 2011;10(1):56-63.
[20] Doumas M, Tsakiris A, Douma S, Grigorakis A, Papadopoulos A, Hounta A, et al. Factors affecting the increased prevalence of erectile dysfunction in Greek hypertensive compared with normotensive subjects. Journal of andrology. 2006;27(3):469-77.
[21] Morley JE, Haren MT, Rolland Y, Kim MJ. Frailty. Medical Clinics of North America. 2006;90(5):837-47.
[22] Okeahialam BN, Obeka NC. Sexual dysfunction in female hypertensives. Journal of the National Medical Association. 2006;98(4):638.
[23] Abedi H, Yasaman AM, Abdeyazdan GH. Quality of life in heart failure patients referred to the Kerman outpatient centers, 2010. 2011.
[24] Yousefi P, Sabzevari S, Mohammadalizade S, Haghdoost A. Study of quality of life in heart failure hospitalized patients in Kerman medical university hospital in 2008. 2011.
[25] Shojaei F. Quality of life in patients with heart failure. Hayat. 2009;14(2):5-13.
[26] Heidarzadeh M, GHanavati A, Pashaie A, Kolahdoozipour J, Mohamad KA, Rahimzadeh A, et al. Qualityof Lifein Congestive Heart Failur Patients: Comparing With Other Groups. 2015.
[27] Abdollahi A, Roohi G, Rahmani AH, Nassiri H. A Comparative Studyon The Myocardial Infarction Patients Qualityof Lifeand Healthy People. 2012.
[28] Rejeh N, Heravi-Karimooi M, Taheri Kharame Z, Montazeri A, A V. Quality of life in patients with myocardial infarction and related factors: A cross sectional Study. IJNR. 2015;9(4):1-11.
[29] Hsanpour-Dehkordi A, Nazari A-A, Heidar-Nejad M-S, Asadi-Noghabi A-A, Forouzandeh N, Kasiri K-A, et al. Factors influencing quality of life in patients with myocardial infraction. Iran Journal of Nursing. 2009;22(57):43-52.
[30] Bagheri I, Memarian R, Hajizadeh E, Pakcheshm B. The effect of sex education on patients and their spouses satisfaction after myocardial infarction. jorjani. 2014;2(1):46-0.

[31] Taheri KZ, Heravi KM, Rejeh N, Montazeri A, Hajizadeh E. Qualityof Life in Patients With Angina Pectoris. 2014.
[32] Mohammadi sZ, F g. Sexual Dysfunction and Its Correlation with Quality of Life among Women Affected with Cancer. Journal of Female Gynecology and Infertility. 2009;12(2):39-46.
[33] Alavian M, Fathi Ashtiani A, Azizabadi Farahani M, Lankarani M. Relation quality of life and marriage relationship in patients with chronic vieral hepatitis2008.
[34] Phan A, IsHak WW, Shen BJ, Fuess J, Philip K, Bresee C, et al. Persistent sexual dysfunction impairs quality of life after cardiac transplantation. The journal of sexual medicine. 2010;7(8):2765-73.
[35] Bossini L, Fortini V, Casolaro I, Caterini C, Koukouna D, Cecchini F, et al. [Sexual dysfunctions, psychiatric diseases and quality of life: a review]. Psychiatria polska. 2013;48(4):715-26.
[36] NEKOUEIFARD O, JAHANGIRY L. SEXUAL FUNCTION AMONG PATIENTS WITH BREAST CANCER. 2014.
[37] Noosh-abadi AN, Rezaei O, Ebrahimi-Daryani N. The Relationship between Sexual Function and Quality of Life in Patients with Irritable Bowel Syndrome. Govaresh. 2014;18(4):216-23.