ORIGINAL ARTICLE

The relationship between social support and quality of life in patients with heart failure

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Abstract

Objective: To describe the level of social support and quality of life in heart failure patients, and to examine their relationship with perceived social support and quality of life.

Methods: The cross-sectional study was carried out in the cardiology outpatient units of two university hospitals in Izmir, Turkey, between January and September 2010. Using convenience sampling the study comprised 150 patients who were assessed on the 12-point Multidimensional Scale of Perceived Social Support, and the 36-point Left Ventricular Dysfunction Scale. Data were analysed through SPSS 15, using descriptive statistics and Pearson's correlation test.

Results: The mean total scores for each variable are as follows: perceived social support (49.34±17.57), perceived social support from family (24.25±6.17), perceived social support from friends (12.75±8.16) and perceived social support from others (12.33±7.81). The mean quality of life score was 69.25±23.12. There was a moderately significant negative correlation between the scores of the two scales employed by the study.

Conclusions: The quality of life of the patients improved with increasing social support. Determining and improving family and other social support for heart failure patients should be an essential part of nursing practice.

Keywords: Heart failure, Nursing, Quality of life, Social support. (JPMA 63: 463; 2013)

Introduction

Heart failure is an important health problem due to its high prevalence, the steady increase in this prevalence and very high morbidity and mortality rates it causes.[1] Heart failure is a disease which leads to low quality of life due to the failure to meet basic needs, change in body image, lack of self-care behaviours and activities of daily living, chronic fatigue, sexual dysfunction and concerns about the future.[2-5] Social support can improve the low quality of life of patients with heart failure and can help them to effectively manage the symptoms of heart failure.[6] Lack of social support is a predictor of mortality and rehospitalisation in patients with heart failure.[7] Social support helps a person navigate through life and is necessary for maintaining the person's physical and emotional well-being.[8] Adequate support becomes particularly important when individuals are unable to meet their own needs; often because of physical limitations or inadequate resources for coping.[9] Appropriate and adequate social support may enhance quality of life for individuals with heart failure.[9] A study reported that people who had less emotional support and who lived alone developed psychological stress and could hardly adhere to the treatment regimens and thus their quality of life decreased.[10] A study conducted on the social support perceived by patients with coronary artery disease reported that social support had positive effects on lifestyle changes and on compliance with the treatment.[11]

There are few studies examining the relationship between social support and quality of life in patients with heart failure. One study which evaluated the quality of life in heart failure patients indicated that the patients' social support and quality of life levels were moderate. It was also stated that there was a moderately significant relationship between social support perceived by the patients and physical health sub-scale of quality of life, and that the patients needed more support when their physical health deteriorated.[12] A study which examined the relationship between social support and quality of life in patients with heart failure found that the patients' social support levels were relatively high, whereas their quality of life levels were moderate. It was also found that changes in social support were significantly associated with quality of life.[6] Another study examined the quality of life of patients with heart failure, and found that the patients' social support levels were relatively high whereas their scores for physical and mental health sub-scales of quality of life were lower than those of general population. No relationship was found between social network, social support and the sub-scales of quality of life.[13]

Nurses who spend the maximum time with patients

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have the most important task in providing social support to the patients. Nurses' attempts to activate patients' social support systems have a positive impact on the patients quality of life. A limited number of studies have investigated the relationship between social support and quality of life in patients with heart failure. The study was planned to describe the level of social support and quality of life and to examine the relationship between perceived social support and quality of life in patients with heart failure.

Patients and Methods

The cross-sectional, descriptive and correlational study was conducted between January and September 2010 in the cardiology outpatient clinics of two university hospitals in Izmir, Turkey. Convenience sampling methods were used. Ten patients refused to participate and 42 patients did not meet the inclusion criteria. The study sample consisted of 150 patients with heart failure. The sample included those who had been diagnosed with heart failure for at least six months, whose ejection fraction (EF) values were ≤40% in the echocardiogram taken within the preceding six months, who had no difficulty in communicating, who could speak Turkish, and who volunteered to participate in the study. The University Ethics Committee reviewed and approved the study. Written approval to conduct the study was obtained from the two university hospitals. Those patients who presented at the outpatient clinic for their routine control and who met the criteria of the sampling were told about the purpose of the study, and written informed consent was obtained from the patients who decided to participate in the study and they were asked to fill in the questionnaires.

The patient information form included factors like age, gender, marital status, education, profession, social insurance, income, number of children, person with whom they lived, duration of heart failure, left ventricular ejection fraction (LVEF).

In order to determine the elements of social support perceived by the individuals in the study, the Multidimensional Scale of Perceived Social Support (MSPSS)[14] was used. The adaptation, reliability and validity studies of the scale in Turkey were already available.[15,16] The 12-item scale is rated on a 7-point Likert-type scale ranging from (1) 'very strongly disagree' to (7) 'very strongly agree.'

The scale has three sub-scales, each of which consists of four items that are used to determine the support from family, friends, and significant others. Sub-scale scores are calculated by summing the scores obtained from the four items of each sub-scale. The total score of the scale is calculated by summing the scores obtained from all the sub-scales. The lowest point to be obtained from the sub-scales is 4 and the highest point is 28. The lowest point to be obtained from the scale is 12 and the highest point is 84. Higher scores reflect more perceived social support.

The quality of life was assessed with the 36-item Left Ventricular Dysfunction Scale (LVD-36).[17] This scale consists of 36 items to identify the problems caused by heart disease. Each item offers patients two choices: true and false. The correct answers given by the patients are summed up and the total number of the correct answers is expressed as a percentage. The scores one can get from the scale range between 0 (best) and 100 (worst). The higher the score is, the lower the quality of life is. Validity and reliability of the Turkish version of LVD-36 scale were already established.[18]

Data was collected through face-to-face interviews to help increase the accuracy of the collected information.

Data was analysed on SPSS version 15.0. Descriptive statistics were used to determine patients' characteristics. The relationship between perceived social support and quality of life was examined with Pearson's correlations. The statistic 'r' value of 0.00 to 0.24 was considered a weak relationship; 0.25 to 0.49 was a moderate relationship; 0.50 to 0.74 was a strong relationship; and 0.75 to 1.00 was a very strong relationship.[19] For all analyses, $p<0.05$ was considered significant.

Results

Of the 202 patients available, 150 (74.25%) represented the study sample. Among them 116 (77.3%) were under the age of 65 with a mean age of 55.16±14.93 years. Of the patients, 94 (62.7%) were male; 123 (82%) were married; 67 (44.6%) had primary school education; 121 (80.7%) were unemployed; and 149 (99.3%) had social security cover. The vast majority (n=131; 87.3%) of the patients' income was less than their expenses; most of them (n=119; 79.3%) had 1 to 3 children; and 68 (45.3%) lived with their wives and children. The average duration of diagnosis of the patients was 7.55±5.54 years and the percentage of ejection fraction was 28.89±7.36 (Table-1).

The mean total scores for the perceived social support and quality of life are given in Table-2.

There was a moderately negative relationship between perceived social support and quality of life (r= -0.356, p=0.001). Whereas the scores for the perceived social support from families, friends, and significant others

Table-1: Socio-demographic and disease-related characteristics of the patients (n=150).

Variable	Frequency	Percentage
Mean Age (Years)	**(55.16 ± 14.93)**	
≤65	116	77.3
>65	34	22.7
Gender		
Women	56	37.3
Men	94	62.7
Marital status		
Married	123	82
Unmarried	27	18
Education level		
Primary school	67	44.6
Secondary school	24	16
High school and university	59	39.4
Employment status		
Employed	29	19.3
Unemployed	121	80.7
Social insurance		
Have	149	99.3
Have not	1	0.7
Economic status		
Income > expense	1	0.7
Income < expense	131	87.3
Income = expense	18	12
Offsprings		
None	15	10
1-3	119	79.3
≥4	16	10.7
Living together		
Alone	6	4
With spouse	54	36
With spouse and children	68	45.3
*Other	22	14.7
Disease-related characteristics	**Mean ± SD**	
Disease duration (years)	7.55 ± 5.54	
Left ventricular ejection fraction (%)	28.89 ± 7.36	

*Other: includes only friends, children and relatives.

Table-2: Scores of multidimensional scale of perceived social support (MSPSS) and left ventricular dysfunction (LVD-36) scale (n=150).

	Mean	SD	Range of scores
MSPSS	49.34	17.57	12-84
MSPSS Family	24.25	6.17	4-28
MSPSS Friends	12.75	8.16	4-28
MSPSS Significant others	12.33	7.81	4-28

Table-3: Relationship between multidimensional scale of perceived social support (MSPSS) and left ventricular dysfunction (LVD-36) scale scores.

	MSPSS	MSPSS Family	MSPSS Friends	MSPSS Significant others
	r (p)	r (p)	r (p)	r (p)
LVD-36 scores	-0.356 (≤0.001)	-0.211 (≤0.010)	-0.323 (≤0.001)	-0.298 (≤0.001)

increased, the quality of life scores decreased (Table-3).

Discussion

The results revealed that the patients' scores for the perceived social support from the family were quite high, from friends and significant others were close to each other.

A study investigating the perceived social support in patients with a chronic disease, including heart failure, determined that the mean scores for the perceived social support from the family were high.[20] Another study found that family members, especially spouses, received more support in crisis situations.[21] Yet another study found that married individuals received more emotional support.[22] That the patients in our study achieved the highest scores of perceived social support in the perceived social support from family might be due the fact that the majority of the patients included in the study were married and lived with children. Moreover, since family members of Turkish society prefer living together, have strong family ties, display strong coordination and are aware of the importance of the family, this result is an expected one and is consistent with cultural properties of Turkish society. High mean scores for the perceived social support from family can be considered as a positive finding which indicates that the patients with heart failure are provided enough social support by their families. Family is the greatest source of help for the patients to deal with the effects of a chronic disease.

In the study, perceived support from friends and perceived support from significant others were found to be close to each other. A study on social support and self-care in heart failure patients indicated that patients received most of their social support from friends.[23] Others reported that most of the patients received support from their relatives and close friends.[24] This result differs from the outcome of our study. According to the results of a study performed abroad, due to the cultural properties of their society, after a certain age, most young people live away from family, spend more time with friends and expect the support they need from friends; therefore, it may be postulated that they receive most of the perceived support from friends.[24] On the other hand,

in Turkey, this may be the result of the decrease in social relations due to increased urbanisation, and in relationships between neighbours, friends and relatives due to the increase in the number of working women.

In the study, according to the scores obtained from the whole scale, the patients' perceived social support was found to be slightly higher than moderate. That study assessed the perceived social support of patients with heart failure as moderate.[24] In the current study, the patients' diagnoses were made quite a long time ago, which resulted in the emergence of several problems affecting their daily life and in an increase in concerns about the future and needs for social support.

According to the results of the study, it can be said that quality of life in the patients who made up the study sample was moderate. A study examining the quality of life in patients with heart failure found that the patients' scores for the physical and mental health sub-scales of the quality of life were lower than the scores of general population.[13] Another study examining the relationship between cognitive function and quality of life, determined the patients' quality of life as moderate.[25] These results are consistent with the results of the current study. However, these results are lower than the results of the study in which LVD-36 was used to evaluate quality of life in patients with heart failure in Turkey.[18] The reported alpha coefficient for the MSPSS and its sub-scales of family, friends, and significant others have been reported to be 0.89, 0.85, 0.88 and 0.92 respectively in the Turkish population.[16] In this study, Cronbach alpha values for the scale and for the sub-scales of family, friends, and significant others were found to be 0.93, 0.97, 0.97 and 0.96 respectively. The reported alpha coefficient for the LVD-36 was 0.87. In this study, Cronbach alpha value obtained from LVD-36 was 0.93, Kuder Richardson coefficient was 0.94, and the confidence interval was 0.92 - 0.95. When the nature of the study sample is considered, it can be said that patients were unable to carry out their own self-care because their EF values were =40%, and that their quality of life was low because they received moderate social support. Moreover, quality of life of patients with heart failure significantly decreased, due to the conditions such as their gradually worsening symptoms, changes in body image, being unable to perform daily activities, chronic fatigue, sexual dysfunction, frequent hospitalisations and concerns about the future.[2-5,7,18] This result points to the fact that nurses should display a holistic approach due to the significant changes in the lives of patients with heart failure (HF), and should help them to improve their quality of life.

In the study, a moderately negative relationship was found between the total score for the MSPSS and the mean scores of LVD-36. As the patients' perceived social support score increased, so their quality of life score decreased, which suggests that increased social support contributes to an increase in patients' quality of life. These findings suggest that social support may be an important area for intervention in individuals with HF. There were several studies examining the relationship between social support and quality of life with HF patients; some of them found a relationship between the two of them.[6,12] In contrast, there were some studies which concluded that there was no relationship between them.[11] More research should be conducted on this relationship.

In this study, a moderately negative relationship was found between patients' perceived social support from family and the mean quality of life scores. As regards this finding, as the scores patients received from the perceived social support from family scale increased, so their quality of life scores decreased, which indicates that increased social support increases patients' quality of life. The weak relationship between perceived social support from family and quality of life in Turkey can be explained with the strong social support from family. In Turkey, family's social support is a natural part of care-giving process, because care-giving is considered as the family's responsibility. Therefore, social support from family may be less associated with quality of life. It is assumed that only if families are educated by professionals, will the social support from families be more effective.

There was a moderately negative relationship between scores of perceived social support from friends and mean scores of quality of life. Whereas the scores for the perceived social support from friends increased, the quality of life scores decreased, which indicates that increased social support increases patients' quality of life. A study stated that the support from friends is more positive because it is not friends who are supposed to provide support but families.[21]

There is a moderately negative relationship between perceived social support from significant others and the mean scores of quality of life. The moderate relationship between social support from significant others, and quality of life indicates that patients make use of the sources of support from outside the family. This situation suggests that social interactions with those other than the family members may improve patients' quality of life, because family members are constantly together with patients and this negatively affects family members' bio-psychosocial health.

Some methodological issues in the present study need to be discussed as they may threaten the validity of the findings. The study has a cross-sectional, descriptive and correlational design and, therefore, the conclusions drawn from the study can not suggest causation.

That the vast majority of the patients included in the research sample are married and live with their family, and that only those patients who presented at the clinic for follow-up were included in the research are the limitations of the research. Although the sample size in the study was adequate, including larger numbers of patients and patients from institutions other than university hospitals as well might have increased the generalization of the findings.

Conclusion

In the light of the results of the research, it can be suggested that the higher the levels of social support, the higher the patients' quality of life, which proves the fact that the support provided for patients should be increased. It is important to provide support for families because patients receive most of the support from their families. In order to protect caregivers' bio-psychosocial health, they should be helped to tolerate the burden of care, by providing them training on such topics as stress coping strategies and effective communication skills. In the future, qualitative studies can be conducted in order to find out how social support affects quality of life.

Since social support plays a great role in the improvement of quality of life, nurses should find ways to activate the sources of support and to direct them. Sources of support from outside the family should be activated. In the future, qualitative studies can be conducted in order to find out how social support affects quality of life.

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