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Social Support and Self-care Behavior among Heart Failure Patients: Is there any Relationship

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ABSTRACT

Heart failure is one of the main cardiovascular diseases and social support towards it is an important benchmark for accomplishing healthy behavior. The aim of this study was to determine relationship between social support and self-care behavior among heart failure patients. This cross-sectional study was conducted among 64 heart failure patients attending Isfahan Cardiovascular Research Institute during 2013. Data collections were based on standard questionnaires and are analyzed by SPSS version 20 using Pearson's correlation statistical test. The mean age of respondents was 54.5 years [SD: 7.8]. There was correlation between social support and self-care behavior ($P < 0.001$ & $r = 0.481$). Furthermore, family support was highly correlated with self-care behaviors ($P < 0.001$ & $r = 0.462$). It seems that it could be beneficial to provide educational programs to patient's families for more support of patients in doing self-care behaviors.

Key words: Heart Failure Patients, Self-Care, Social Support

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1. INTRODUCTION

Heart failure is considered as a main cardiovascular disease which people mostly cope with in their middle age, when they are most needed in their families and society; statistics suggested that the highest load of using health care services was dedicated to heart failure cases (1-3). According to latest statistics from recent studies reported by World Health Organization, more than 80 percent of cardiovascular cases occur in low or average income countries; statistics, also, suggested that half of cardiovascular diseases in those countries occur at ages lower than sixty (4, 5). On one hand, it was predicted that cardiovascular diseases would be the reason for 75 percent of mortality rate around the world till 2020 (5). Studies reported that some factors such as gender, age, blood pressure, diabetes, smoking, decreasing body activity could be effective on cardiovascular diseases (6-9). On the other hand, self-caring behavior was considered as an important medical activity among such patients (10). Daily self-weighting, visiting a medicine doctor (MD) in case of foot swell and regular uptake of prescribed medication by

physician are some examples of self-care behavior among heart failure patients, and non-medication care training could be beneficial in controlling the disease (11, 12). In addition, several studies mentioned the relationship between perceived social support and heart failure (6-9). An effective factor on spiritual and mental status and following treatment in chronic diseases, especially heart failure, is the social support (9). Considering the disability resulted by heart failure, all aspects of life including social support should be considered in taking care of those patients (13). Social support is defined as the rate of passion, care and help from family members, friends and others to the patient (14) and perceived support means personal understanding of available support, enough evaluation of support and quality of support in need; mental aspect of social support could be an efficient psychological assistance to resist life pressures and problems to people in need. As such people have the conception in their mind that there is always someone to help them while they need help, they resist the problems more strongly (15). In addition, it greatly affects people's

operation to be able to produce much better response to problems and difficulties (16, 17). According to *Andre-Peterson et al.*, social support from family and friends and receiving corporeal sources like a shelter to stay in could be a facilitator to treatment and improvement of its consequences. Also, receiving social support in family increases recovery period, empowers self-care behavior and decrease relapse opportunity (18). Perceiving social support could prevent undesirable physiological consequences of disease in people and clearly increase their operation; it can also be considered as an effective factor to inhibit the symptoms to spread out, increase recovery period and stop disorder to relapse (19). In other hand, several studies state that health education and promotion programs need to emphasize on psychological factors that mediate healthy behaviors (20-22). The objective of this study was to determine relationship between social support and self-care behavior among heart failure patients referred to Isfahan research treatment center of heart, in the center of Iran.

2. MATERIALS AND METHODS

This cross-sectional study conducted on 64 heart failure patients attending Isfahan Research - Treatment Center of Heart, the center of Iran, during 2013. All of the population signed the consent form and voluntarily agreed to participate in the study, which has been approved by the Institutional Review Board at Isfahan University of Medical Sciences. The criteria to participate in the study include living in Isfahan city, having the tendency to participate in the study, reporting heart failure based on: 1. Positive echocardiography, 2. Background of at least 6-month experiencing heart failure.

2.1. Measure

Questionnaire included three sections:

Part 1: Background data

The variables assessed in this study included: age (years), sex (men, women), education level (illiterate, primary school, secondary school, high school, and academic), and marital status (single, married, divorce or dead wife).

Part 2: Social Support Scale

A 12-item standard scale evaluated social support. Each item was measured on an ordinal seven point Likert-type scaling (1 = strongly disagree to 7= strongly agree). Multidimensional scale of perceived social support included three scopes (family, friend and other significant). Examples of the items: There is a special person who is around when I am in need. Cronbach's alpha for social support scale was (0.85 to 0.91), reported by Mitchell and Zimet, indicating excellent internal consistency; in addition, the range social support questioner was 12 to 84 (23).

Part 3: Self-Care behavior Scale

Self-care behavior was evaluated by the 15-item European

heart failure self-care behavior scale; Cronbach's alpha for self-care behavior scale was (0.80), indicating excellent internal consistency. Each rated by five response options ranging from one (I completely agree) to five (I do not agree at all). The range of self-care behavior questioner was 15 to 75. Examples of the items are: I weigh myself every day (24). Data was analyzed by SPSS version 20 using Pearson correlation statistics at significant level 95%.

3. RESULTS AND DISCUSSION

The mean age of respondents was 54.5 years [SD: 7.8]. Only 14 % of the participants have an academic education. All of the participants were married. More details of demographic characteristics of the participants are shown in Table 1.

Table 1. Distribution of the demographic characteristics among the participants

Variables	Number	Percent
Age group (year)		
35-45	11	17.2
46-55	25	39.1
56-65	23	35.9
66-75	5	7.8
Gender		
Male	44	68.8
Female	20	31.2
Educational Level		
Under Diploma	15	23.5
Diploma	21	32.8
Technician	19	29.7
BS.c	7	10.9
MS.c	2	3.1

Table 2 shows the mean score of social support and self-care behavior. Based on our findings, family support received a high score among the scope of social support.

Table 2. The mean (SD) of social support and self-care behavior among the participants

Variable	Mean	SD
Significant Others	44.9	2.3
Friends Support	53.7	1.8
Family Support	59.8	2.2
Total Perceived Social Support	52.8	6.2
Self-Care Behaviors	49.2	12.3

Furthermore, we found correlation between social support and self-care behavior ($P < 0.001$ & $r=0.481$). In addition, among the type of social support scope, family support was high in correlation with self-care behavior ($P < 0.001$ & $r=0.462$) (Table 3).

Table 3 . The correlation between perceived social support and self-care behavior

Scope of Perceived Social Support	Self-Care Behaviors	
	r	p
Significant Others	0.261	<0.001
Friends Support	0.331	<0.001
Family Support	0.462	<0.001
Total Perceived Social Support	0.481	<0.001

Furthermore, the mean and (SD) of self-care behavior items among participants showed in Table 4.

Table 4. The Mean and (SD) of Self Care Behavior Items among Participants

Self-care Behavior	Mean	SD
I weigh myself every day.	1.2	0.64
If I gain 1 kg in one day or 3 kg in two day, I contact my doctor.	1.2	1.6
When my feet/legs swell, I alert my doctor	2.05	1.4
Daily I am careful how much urine.	1.7	1.8
I limit the amount of fluids I drink.	1.8	1.1
If you feel tired, I do not do things that are difficult.	1.7	1.9
I plan my activities throughout the day	2.7	1.6
If I experience increasing fatigue, I alert my doctor	3	1.5
Do not eat canned foods.	3.4	0.76
I take my medication as prescribed.	4.23	0.4
I am careful about providing medications on time which that I wasn't without medication.	4	0.8
I avoid persons that have a cold/flu	3.8	1.2
Smoking	3.4	0.9
I go to the doctor on time.	3.8	0.43
I comply with a low salt (low sodium) diet	3.3	1.1

Present study aimed to investigate the relationship between social support and self-care among cardiovascular patients; results of the study showed that improving perceived social support with self-care behaviors among cardiovascular patients in correlation group was positively meaningful. As a result, the higher the perceived social support, the more the self-care behaviors. It could be concluded that social support facilitates health behaviors. Therefore, increasing perceived social support leads to better self-care behaviors. Social support facilitates accomplishing healthy behaviors; those patients with heart failure who receive enough social support seem to be more successful to follow prescribed food and medicine diets and control drinking liquids. Results from present study corresponded several other studies (9, 11-14). For instance, Christenson(13) in his study on 81 patients with kidney failure suggested a strong relationship between perceived social support and self-care behavior among patients (such as controlled diet and weight control). Stanton (19), also, reported a strong relationship between perceived social support and self-care behavior among patients with high blood pressure. Kulik

and Mahler studied 80 patients having cardiovascular diseases and reported the efficiency of social support on decreasing smoking and increasing regular walking activities among patients (14). Also, Garay-Sevilla et al. reported effective effect of social support on using medicine and keeping diet (16). Sullivan et al. in their study on cardiovascular patients in Chicago showed that social support resulted in lower rates of depression and anxiety and increasing the tendency to accomplish self-care behaviors led to fewer cases of re-hospitalization of patients and lower mortality among them (10). In addition, Karami-Matin et al, reported that social support were stronger predictor factors for quality of life among drug addicts (25). Another findings of present study, higher level of mean family support scope and strong correlation between family support and self-care behavior. In this regard, Dunbar in their study reported family support was a significant role on take low salt diet among the heart failure patients (12). Also, Jalilian et al. carried out a research on men addicts in Kermanshah, the west of Iran, and reported that family support was a more important effective factor among types of social support in drug cessation (26). This study included a few limitations, though. First, data collection was based on self-reporting, which is usually prone to recall bias. Second, low sample size was another limitation of this study.

4. CONCLUSION

Our findings showed that family support represented a strong correlation with self-care behavior; thus, it seems that designing and implementation of educational programs to increase family knowledge about effectiveness of support among patients can be helpful to increase self-care behavior among heart failure patients.

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AUTHORS CONTRIBUTION

This work was carried out in collaboration between all authors.

CONFLICT OF INTEREST

The authors declared no potential conflicts of interests with respect to the authorship and/or publication of this article.

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