

Evidence Based Care Journal

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The online version of this article can be found at

http://ebcj.mums.ac.ir/article_10505.html

Evidence Based Care Journal 2018 08:55 originally published
online 01 April 2018

DOI: [10.22038/ebcj.2018.29552.1732](https://doi.org/10.22038/ebcj.2018.29552.1732)

Online ISSN: 2008-370X

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Psychometric Properties of Social Support Questionnaire to Measure Empowerment in Elderly Patients with Cardiovascular Disease in Iran

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Received: 05/02/2018

Evidence Based Care Journal, 8 (1): 55-66

Accepted: 15/03/2018

Abstract

Background: Chronic diseases and functional decline can affect empowerment among the elderly in the lifestyle management to benefit from social support.

Aim: The aim of the present study was to determine the psychometric properties of Social Support Questionnaire to measure empowerment in elderly patients with cardiovascular disease in Iran.

Method: This study was conducted on 250 elderly patients with cardiovascular disease referring to the medical centers of Bushehr city, Iran, using the convenience sampling method.

Results: Content validity index and content validity ratio were calculated as 0.94 and 0.96 respectively. Based on the exploratory factor analysis, the number of the questionnaire items was reduced to 23 items. Empowerment was classified under seven factors. The internal and external reliabilities of the questionnaire were estimated as 0.85 and 0.83, respectively.

Implications for Practice: The final questionnaire had appropriate psychometric properties and strength of factor structure. Therefore, this tool can be used by the healthcare providers in the health care systems of Iran.

Keywords: Aging, Cardiovascular diseases, Empowerment, Questionnaire, Social support

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Introduction

In the second half of the twentieth century, the improvement of health and medical status was followed by an increase in life expectancy and the phenomenon of aging (1). Although the enhanced life expectancy reflects the success of health interventions, chronic diseases lead to disability, low quality of life, and increased care costs (2). The proportion of the world's population over 60 years will double from about 11% to 22% between 2000 and 2050 (3). According to the latest Iranian Census Data, about 8.2% of the population was over 60 years of age in 2011; this amount is expected to rise to 10% in 2020 (4).

The risk of living with chronic diseases, such as cardiovascular diseases, type II diabetes mellitus, and osteoporosis, increases with the aging of the population (5). Over 80% of the seniors have at least one chronic disease, and nearly half of them suffer from hypertension (6). Accordingly, Ostovar et al. in cohort study conducted on older people in Bushehr, Iran, highlighted the high prevalence of cardiovascular diseases and metabolic syndrome among this age group (7).

Cardiovascular diseases impose economic, social, and psychological burdens as direct and indirect health costs, and thereby lead to the loss of empowerment and quality of life (8). The maximization of the empowerment can facilitate the ability to cope with chronic diseases. In a qualitative study examining the resources of power in the old Iranian people, social power was identified as an important power resource, which is achieved through interaction with others (9). Since people with chronic diseases may be deficient in power resources, all other resources of power need to be developed to prevent the individual's powerlessness (9, 10).

The social support care plan is a plan required for the patients to achieve a relative success in managing chronic problems (11). Social support includes the acquisition of information, financial assistance, health recommendations and plan, and emotional support from the others (the individuals who are considered interesting and valuable by the patient and those assumed as a part of the social support network, such as spouse, relatives, and friends (12).

Social support has a moderate main effect and a weak stress-buffering effect on the mental health of the elderly (13). Furthermore, the World Health Organization identifies social support as a key determinant of active aging due to the importance of strong social ties for life satisfaction and subjective wellbeing among older adults (14). Importantly, the condition of empowerment in the elderly to receive social support should be determined with appropriate measurement instruments.

Studies investigating the needs of the elderly in terms of social support have examined the relationship between social support and health components (15-17) using the instruments mainly describing the support level the individual receives from his or her social network members. For instance, in a study performed by Naseh et al. (18), the reliability and validity of the Persian version of Social Support Questionnaire developed by Sarason (1983) were examined in two dimensions of "social support network" and "social support satisfaction" among the Iranian community.

In addition, Masoudnia (2011) performed a psychometric evaluation of the Persian version of a questionnaire developed by Cantz-Mitchell and Zimet (2000), which described the dimensions of perceived social support (19). In a study, the individuals' perceptions of various aspects of social supports were mostly considered, and the empowerment of individuals to receive this support was not examined.

It should be also noted that despite the favorable psychometric properties, the aforementioned questionnaires do not correspond to the Iranian culture in some of the items, especially for being applied in the age group of the elderly, and their translated versions have been used in the Iranian studies. In addition, given the importance of social support in patient with chronic diseases, these instruments are not specific to chronic conditions (including cardiovascular problems).

The Medical Outcomes Study Social Support Survey (MOS-SSS) was designed by Sherbourne and Stewart (1991) to assess social support. This instrument consists of 19 items in five subscales of 'tangible support', 'emotional support', 'information', 'kindness', and 'positive social support' (20). In another study performed by Davaridolatabadi and Cheraghi (11), after combining and modifying five social support questionnaires available, they developed a questionnaire to assess perceived social support in patients with heart failure. However, they did not fully benefit from the psychometric process (including construct validity) to categorize the types of social support.

Therefore, none of the existing social support questionnaires can measure the empowerment of an elderly patient with cardiovascular disease to receive social supports.

Meanwhile, the problems and limitations in the elderly age, as well as cardiovascular disorders, can affect the empowerment of the elderly in lifestyle management to benefit from social supports. Therefore, the importance of social support in improving the quality of life among the elderly and lack of appropriate instrument to measure the empowerment in this population to receive social supports highlight the need to design a reliable and valid questionnaire suited to the Iranian culture for the elderly group. With this background in mind, the present study was performed to develop a questionnaire measuring the empowerment of elderly patients with cardiovascular disease to receive social support and evaluate the designed questionnaire psychometrically.

Methods

This study was conducted on the elderly patients with cardiovascular disease admitted to a Specialized Heart Center in 2014. The inclusion criteria were: 1) age of ≥ 60 years, 2) cognitive and oral ability, 3) history of cardiovascular diseases at least in the past 6 months as confirmed by a cardiologist, 4) consent of the patient or at least one of his/her companions to enter the study and complete the questionnaire, 5) full consciousness of the patient to answer the questionnaire, 6) specific mental disease, and 7) not using of antidepressant and psychotropic drugs. Different studies have reported various ratios for the necessary sample size for factor analysis.

The minimum subject-to-variable ratios have been reported as 3:1, 10:1, 15:1, and 20:1 in different studies. Considering the number of items for exploratory factor analysis (31 items), the sample size was specified as 250 participants, which was consistent with the maximum ratio of subject-to-variable (8:1). The sampling was performed using the convenience sampling method. The Kaiser-Meyer-Olkin test (KMO) was also performed to ensure the adequacy of the sample size, which was determined to be 250 people according to the number of the questionnaire items (31 items) (21, 22).

Stages of questionnaire development

The questionnaire was developed following the procedure performed by Waltz, Strickland, and Len (23). The basic steps for designing a tool include:

- 1) Selection of conceptual model in order to determine the dimensions of the studied subject matter
- 2) Determination of the purpose of the instrument
- 3) Design an initial plan
- 4) Engineering of the measurement instrument, which involves processes, set of items, and rules of scoring

In this study, the development of the questionnaire was accomplished using the following steps:

- Defining the concept of the empowerment in elderly patients with cardiovascular disease for receiving social support based on an overview of the books, papers, and theories on aging
- Designing the questionnaire items using the resources available in Iran and other countries
- Determining the validity of the questionnaire
- Determining the reliability of the questionnaire

Each of these stages are briefly described in the following sections:

First stage

At this stage, the concept of the empowerment of elderly patients with cardiovascular disease to receive social support was defined by the purposive study and review of the relevant literature, according to the self-management empowerment model developed by Ravanipour for the elderly (24).

Second stage

The second stage involved the development of the questionnaire items based on inspirations from the social support questionnaires available in Iran and other countries, including Social Support Questionnaire by Sarason and Perceived Social Support Questionnaire for Patients with Heart Failure by Davaridolatabadi and Cheraghi (11).

Third stage

After preparing the questions, their validity was assessed using the three methods of face, content, and construct validity. To determine the quantitative face validity, the questionnaire was given to 10

eligible elderly patients with cardiovascular disease. In addition, content validity index and content validity ratio were used to verify the content validity. To estimate the content validity index, the three criteria of simplicity, relevance, and clarity of the questionnaire items were calculated using the following formula:

$$CVI = \frac{\text{number of raters giving a rating of 3 or 4}}{\text{total number of raters}}$$

The evaluation of the content validity ratio was accomplished based on the criterion of the necessity of using the items by means of the following formula (25):

$$CVR = \frac{\frac{ne - \frac{N}{2}}{N}}{\frac{2}{2}}$$

Exploratory factor analysis was employed to determine the construct validity. To this end, the questionnaire was distributed among 250 elderly patients with cardiovascular disease through non-random (convenience or accessible) sampling technique, according to the characteristics intended by the researcher. In addition, exploratory factor analysis was performed using principal component analysis with varimax rotation.

Fourth stage

At this phase, the reliability of the questions was examined by the estimation of the internal and external reliability using Cronbach's alpha test and Pearson correlation coefficient, respectively. After obtaining the necessary approvals from the Research Deputy of University of Medical Sciences, the data were collected by the researcher, directly referring to the study units. After obtaining informed consent, the researcher presented the necessary explanations on how to complete the questionnaire and the objectives of the study. Then, the questionnaire was filled out by the elderly patient (if literate) or by the assistance of the researcher or the subject's companion. The data were analyzed in SPSS software, version 19.

Results

The initial version of the questionnaire contained 35 items.

Calculation of the impact score for each item

After the calculation of the impact score index, none of each instrument items were removed at this stage because their values were higher than 1.5.

Calculation of content validity ratio

In 11 cases out of the 35 items, content validity ratio was lower than those presented in Lawshe's table for 10 people (0.62). However, at this stage, no items were removed due to low score. In this regard, after revising the relevant items and applying the opinions and suggestions of the panel members, only one item was removed due to overlapping with other questions. Furthermore, one other item about adaptation to the long-term use of cardiovascular drugs was added.

Then, to determine the content validity ratio, the 35-item questionnaire was given to the panel members again, according to which 4 cases out of the 35 items obtained scores lower than the values presented in Lawshe's table. Therefore, the number of items was reduced to 31 items. The total content validity ratio was calculated as 0.96 for the 31-item questionnaire. In addition, the content validity index was > 0.79 for all items, with the overall content validity index of 0.94.

To determine the internal reliability of the 31-item questionnaire, the Cronbach's alpha coefficient was

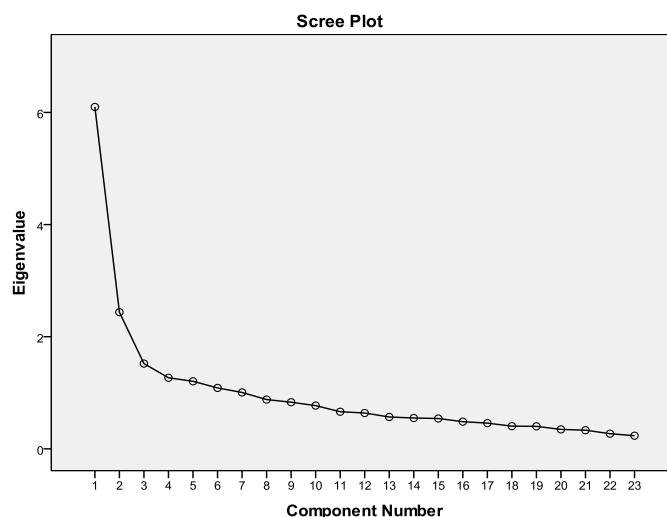


Figure 1. Scree plot for exploratory factor analysis to determine the correlation between items

utilized, which was calculated at 0.90. In addition, the test-retest method was used to estimate the external reliability of the questionnaire. The questionnaire was completed in two stages with an interval of a week by 10 eligible elderly patients with cardiovascular disease, and the results showed a desirable correlation coefficient of 0.83.

The KMO index of 0.829 represented adequate sample size for factor analysis. The Bartlett's test of sphericity also demonstrated that factor analysis was appropriate to identify the factor model structure ($P<0.0001$). Furthermore, there were detectable relationships between the variables that were subjected to factor analysis. Using the eigenvalues greater than 1, seven factors (with the predictive power of 63.574) were extracted and selected from the total changes in the factors of empowerment in the elderly people based on the slope of the scree plot (Figure 1).

After the review, 8 items were eliminated from the final questionnaire due to the lack of allocated factor loading. Finally, the total number of the questions was reduced to 23 items. The first, second, third, fourth, fifth, sixth, and seventh factors consisted of 5, 4, 3, 4, 3, 2, and 2 items with factor loadings ranging within 0.591-0.772 (eigenvalue=6.098), 0.458-0.758 (eigenvalue=2.438), 0.649-0.782 (eigenvalue=1.251), 0.498-0.727 (eigenvalue=1.268), 0.562-0.787 (eigenvalue=1.205), 0.548-0.665 (eigenvalue=1.087), and 0.751-0.832 (eigenvalue=1.006), respectively (Table 1).

Table 1. Rotated Component Matrix of exploratory factor analysis for the instrument of empowerment in the elderly people to receive social support

Questions	Component						
	1	2	3	4	5	6	7
q15	.772						
q14	.655						
q9	.645						
q20	.641						
q28	.591						
q4		.758					
q6		.682					
q2		.672					
q8		.458					
q7			.782				
q5			.728				
q3			.649				
q27				.727			
q22				.621			
q26				.520			
q21				.346			
q18					.787		
q17					.776		

Continuous of Table 1.

q19	.562
q16	.665
q25	.548
q13	.832
q23	.751

Therefore, based on the results of the exploratory factor analysis of 31 items, 23 items were confirmed, and the dimensions of empowerment were divided into seven factors. The first to seventh factors were respectively named as ‘management of risk factors for the disease’, ‘provision of information by the medical team’, ‘provision of information by the family and the patients’ companion’, ‘satisfaction with goal achievement’, ‘functional and intellectual independence’, ‘drug therapy management’, and ‘ effective communication with those around the patient’ (Table 2).

Table 2. The final version of the Social Support Questionnaire to Measure Empowerment in Elderly Patients with Cardiovascular Disease

Factors	Number	Items	Never	Sometimes	Often	Always
Managing risk factors for the disease	15	I do my physical activities suited to my health.				
	14	I observe my diet suited to my health.				
	9	I use the recommendations from the doctor, nurse and those around me to control my illness.				
	20	I have tried a lot to control my illness and am satisfied with the results.				
	28	I well control the behaviors and factors that can exacerbate my cardiac and mental problems.				
Receiving information from the medical team	4	I receive helpful information and tips from my doctor and nurse on how to use medications.				
	6	I receive helpful information and tips from my doctor and nurse about my diet.				
	2	I receive helpful information and tips from my doctor and nurse about the factors that cause heart disease.				
	8	I receive helpful information and tips from my doctor and nurse about my physical activities.				
Receiving information from family and those around	7	If possible, I receive helpful tips from family members and relatives who are aware of my physical activities.				
	5	If possible, I receive helpful tips from family members and relatives who are aware of my diet.				
	3	If possible, I receive helpful tips from family members and relatives who are aware of how to use medications.				
Satisfaction of achieving goals	27	If possible, I try to increase my knowledge and get information about my illness in different ways (e.g. reading books, searching the computer, cell phone).				
	22	I feel satisfied that I could easily talk about the current status of my illness with a doctor and nurse.				
	26	I still can do a lot of work to manage my illness.				
Functional and intellectual independence	21	I feel satisfied that I could easily talk with family members and the people around me about the current status of my illness.				
	18	Despite the illness, I try to make major life decisions myself in consultation with others as far as possible.				
	17	I try to do my things independently as far as possible.				
Drug therapy management	19	I schedule for my leisure time.				
	16	I try to accept the difficulties of long-term use of cardiac medications.				
	25	If necessary, I use well the help of those around me to properly use my medications.				
Communicating effectively with those around the patient	13	Despite the problems associated with my illness, I still keep my place in the family with proper words and behavior.				
	23	I feel satisfied that I could respect the rights of other family members and friends.				

Table 3. Cronbach's alpha of social support questionnaire for the elderly people, after exploratory factor analysis

Dimensions of empowerment	Number of Items	Cronbach's alpha
Managing risk factors for the disease	5	.809
Receiving information from the medical team	4	.792
Receiving information from family and those around	3	.699
Satisfaction of achieving goals	4	.617
Functional and intellectual independence	3	.593
Drug therapy management	2	.573
Communicating effectively with those around the patient	2	.541
Total questionnaire	23	.858

After factor analysis, the total internal consistency was examined for the 23-items questionnaire. Cronbach's alpha coefficient for the 250 elderly patients with cardiovascular problems was calculated for the questionnaire (0.858), which varied between 0.541 and 0.809 for each of the questionnaire factors (Table 3). Before the use of the instrument, the questionnaire was scored as "never" (score 1), "sometimes" (score 2), "often" (score 3), and "always" (score 4). It should be noted that all items in the questionnaire were positive. After the completion of the questionnaire by 250 respondents, the distribution of the answers indicated that all columns of 4-point Likert scale were chosen by the participants.

Given that the social support questionnaire for the elderly patients with cardiovascular disease includes 23 items, the minimum and maximum scores of the total questionnaire will be equal to 23 and 92 points, respectively, with a minimum score of 1 and a maximum score of 4 for each item. To determine the quality of empowerment level in the elderly to receive social support, the following formula was used to calculate the distance in the norm of four-class scale of the questionnaire to measure empowerment in the elderly people (26).

Distance in the norm of scale=maximum total score of the questionnaire-minimum total score of the questionnaire/ Number of items of answering the questionnaire

Therefore, the empowerment of the elderly people to receive social support was described at four levels on a 4-point Likert scale, including weak (23-40), medium (40.1-57), good (57.1-74), and very good (74.1-92) states.

Discussion

The present study aimed to develop and psychometrically evaluate a social support questionnaire for elderly patients with cardiovascular disease. The seven dimensions of empowerment were determined and named as 'management of risk factors for the disease', 'provision of information by the medical team', 'provision of information by family and those around them', 'satisfaction with goal achievement', 'functional and intellectual independence', 'drug therapy management', and 'effective communication with those around the patient'. As the findings indicated, the developed instrument had appropriate reliability and validity for the measurement of the empowerment of elderly patients with cardiovascular disease to receive social support.

Based on the literature review of the studies performed in and out of Iran, it seems that no instrument has been designed to measure the empowerment of an individual to receive social supports. From the experts' perspective, social support is a dynamic process between the individual and their network members. In addition to the structural and interactive features and role of the network members, demographic and personal characteristics (e.g., age, marital status, economic and social class, and communication skills) have been also considered in the study of social supports (27).

In a study performed in Northern California, Fisher (1982) argued that individual's characteristics can affect social networks and social supports. Accordingly, he gave a special attention to these features because of the opportunities and constraints they expose the individuals to (28). Therefore, the present study aimed to design a questionnaire for the measurement of empowerment among the elderly people to receive social supports using the self-management empowerment model of the older people and other sources.

The questionnaire was designed so that a special attention was given to the empowerment of the elderly people to exchange support with the network members, because if the individual is unable to compensate for the help he/she receives, an imbalance is created, which would probably causes resentment for or even cut off communication with the helper (27). Therefore, the questionnaire developed in the present study is different from other existing social support questionnaires. Another feature of this questionnaire is its applicability in clinical trial research to promote the empowerment among the elderly people to receive social supports.

The areas of empowerment in this questionnaire include empowerment in the management of risk factors for the disease, provision of information by the medical team, provision of information by family, satisfaction with goal achievement, functional and intellectual independence, drug therapy management, and effective communication with those around the patient.

Davaridolatabadi and Cheraghi (11) designed and introduced a specific instrument by combining and modifying five social support questionnaires available to examine the perceived social support in patients with heart failure. They developed a questionnaire in three dimensions of emotional, informational, and instrumental support. The subscales of informational support included receiving helpful tips and information from families, friends, those around the patients, and medical personnel about the disease and how to care it.

In the present study, the subscales of two factors (i.e., provision of information by family and those around and provision of information by the medical team) included ‘provision of information and helpful tips by the family, those around the patient, doctor, and nurse about the use of medicines, diet, and physical activities’ and ‘risk factors for the disease’; however, they were separated from each other in the questionnaire. This is one of the strengths of the present questionnaire. The questionnaire of Davaridolatabadi and Cheraghi is a specific instrument for the patients with cardiovascular diseases (11). In addition, due to the simplicity and comprehensibility of its items, which are 30 in number, the questionnaire can be easily answered by patients with chronic disease, especially the elderly.

In the mentioned study, Cronbach's alpha and test-retest methods were used to determine the reliability of the instrument. The correlation coefficient of the mentioned questionnaire was also calculated using a standard social support questionnaire. They obtained favorable results; nonetheless, they did not report the content validity ratio and content validity index. The lack of performing construct validity and factor analysis for the determination of the factors and allocation of the items to each of the three dimensions of emotional, informational, and instrumental support arise many questions in this study.

Naseh et al. (18) examined the reliability and validity of the Persian version of Social Support Questionnaire developed by Sarason, which consists of 27 sections, each of which containing two questions. The first item in each section is related to certain conditions, according to which the participant must think and write the names of the people whom they feel they can help in such conditions. The second question covers the individual's satisfaction with social support perception in certain conditions. For example, the person completing the questionnaire is asked to name those whom he/she thinks could help in such a situation.

In the mentioned study, favorable results were obtained when determining the validity of the Persian version of the questionnaire. In the factor structure, the Kaiser-Meyer-Olkin test showed that the utility of data were in favor of the factor analysis. The internal reliability of the questionnaire was obtained at 0.95 and 0.96 for the dimensions of “network” and “satisfaction”, respectively. Although very good results were obtained from the psychometrics of the Persian version of Sarason's Social Support Questionnaire, the use of this instrument seems to be inappropriate for the elderly group and its items are not suited to the Iranian culture, especially in the elderly group.

The factors extracted in MOS-SSS, which was developed in 1991 by Sherbourne and Stewart to be used for medical outcomes, include tangible support (financial and behavioral assistances), emotional support (positive affect, sympathy, and encouragement to express emotions), information (providing guidance, information, and feedback), kindness (expression of love and affection), and positive social interaction (availability of people to engage in leisure activities) (20).

Although MOS-SSS has been used in various clinical situations by domestic and foreign researchers, it does not question the various aspects of the disease (e.g., drug therapy, diet, and communication with the medical team). In another Persian study, the researchers developed and examined the reliability and validity of the family social support questionnaire in cancer patients, suited to the

Iranian culture. They used item analysis (discrimination coefficient, loop method), content validity, construct validity (factor analysis), and Cronbach's alpha for the entire questionnaire and factors. Despite adequate psychometric properties and factor analysis results, which showed the four factors of emotional support, informational support, support seeking, and instrumental support, the mentioned study did not explain how to calculate the content validity index, face validity, and content validity ratio. On the other hand, the questionnaire consists of 79 items, which seems difficult to be answered by patients with chronic diseases. In addition, the family is the only source of support for patients in the mentioned questionnaire (29).

Northcott and Hilari (30) developed and psychometrically evaluated a new scale of social support network in patients with stroke in London. In the mentioned study, satisfaction was extracted as one of the factors after factor analysis; therefore, it could measure the patient's satisfaction of communication (and its frequency) with children, friends, and relatives. In the questionnaire developed in the present study, the satisfaction of communication and raising concerns about the disease with family members, those around the patient, doctor, and nurse were also named as satisfaction with goal achievement.

Manit et al. (31) developed an instrument to measure the needs and support resources in the self-management of type II diabetic patients in Taiwan. In the mentioned study, the support resources for self-management measures in patients with diabetes included health care providers, family, friends, the individual (personal factors), neighbors, community, media, and social organizations. In another study, findings suggested that physical activity interventions for the elderly should specifically take into consideration family as important sources of social support for the promotion of general physical activity that aims to increase physical activity levels across a number of physical activity domains. Additionally, the importance of friends as sources of support for leisure time physical activity in older adults was highlighted (32).

In the present questionnaire, the most important resources of social support with which the empowerment of the elderly was measured are the family, those around the patient, doctors, and nurses. Having someone other than a spouse to provide attachment support is more common in cardiac patients who have heart failure and is associated with an increased risk of depressive symptoms. Furthermore attachment-related support provided by a spouse affects the outcomes of cardiac disease that are independent of non-attachment support. This is a distinction that may guide the development of supportive resources in the elderly with heart disease (33).

In the present study, the dimension of empowerment to manage risk factors was the most effective factor of empowerment in the elderly to receive social support, with an alpha coefficient of 0.809. Items relating to this factor include "modification of diet and physical activities according to health status", "following the advice of a doctor, nurse, and those around the patient", and "controlling the factors and behaviors that exacerbate cardiovascular problems". In another qualitative study entitled "Self-management, the Main Strategy of Patient's after Coronary Artery Bypass Graft (CABG)", a class named 'changes in daily routine life' was extracted, which consisted of the subclasses of dietary modification, avoiding isolation, daily walks, stop smoking, and effective communication. In the mentioned study, self-management was also known as the most important strategy after coronary artery bypass grafting (34).

In the current study, the internal consistency of social support questionnaire for elderly patients with cardiovascular disease was confirmed, rendering the alpha coefficient of 0.858 and the minimum consistency coefficient of 0.541 for each factor. In addition, the results related to the reliability of the instrument indicated a good stability using the test-retest method at an interval of one week (0.83).

Another strength of our questionnaire is the ability to perform psychometric evaluation among 250 elderly people with a variety of heart diseases (including heart failure, heart attack, high blood pressure, coronary artery surgery, cutaneous coronary interventions, stent implant, left and right bundle branch block, and atrial and ventricular fibrillation), which increases the ability to use the questionnaire in various cardiovascular disorders.

However, the present study has also some limitations that need to be addressed. The psychometric evaluations of the questionnaire the elderly patients with cardiovascular diseases who had referred to just one hospital heart center reduces the generalizability of the findings in the cardiac elderly patients across the country. On the other hand, the questionnaire does not specify the elderly's age group on whom it is used because the elderly are classified by age into three groups of young elderly, middle-

aged older people and old, as well as frail older people according to reliable sources. Since the younger elderly, especially in the age group of 60-65 years, seem to have higher functioning, as well as mental and emotional abilities, than the other two groups, they require less support from those around them (relating to cardiac medications, for example), and are less likely to request support because they have better self-management than the other two groups. Under these conditions, it cannot be accepted that these individuals suffered from weak empowerment to receive support.

In this context, it is suggested that this important issue be considered in future studies and necessary revisions be made in order to measure the empowerment of the older people for each age group. In addition, further studies are suggested to use and perform a psychometric evaluation of this questionnaire in the elderly patients with cardiovascular disease at the national level and examine other validity methods, including predictive validity.

Implications for Practice

According to the results of the study, the designed questionnaire has good psychometric properties, strength, and credibility required to measure the empowerment of elderly patients with cardiovascular disease to receive social supports. In addition, it is an appropriate questionnaire to determine the effect of interventions on the empowerment of the older people to receive social support in clinical trial, which can be used by the health care providers in the health care systems of Iran. Moreover, the developed questionnaire corresponds to the Iranian culture and is easy and understandable to answer in the elderly group.

Acknowledgments

The present study was extracted from a master thesis submitted to the Faculty of Nursing and Midwifery of Bushehr University of Medical Sciences, Bushehr, Iran. This study was approved in 2014 and financially sponsored by the Deputy of Research of the Bushehr University of Medical Sciences grant [#71-3757]. The researchers would like to express their gratitude and appreciation to the respectable authorities and nurses of Bushehr Specialized Heart Center and all the dear older people and their families cooperating with this study.

Conflicts of Interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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