

The Correlation Between Social Support and Self-Care Agency in Elderly Patients with Hypertension

ABSTRACT




Background: The purpose of this descriptive study is to investigate the relationship between social support and self-care agency in elderly patients who are hypertensive.

Methods: This study was conducted with 150 patients who were hypertensive aged ≥ 65 who applied to the cardiology outpatient clinic of Firat University Hospital (Elazığ, Turkey). Patient information form, including sociodemographic and disease-related data, Self-Care Agency Scale, and Multidimensional Scale of Perceived Social Support were used for data collection. Independent t-test for pairwise comparison, Kruskal-Wallis test for multiple group comparison, and Pearson's correlation analysis for correlation between the study variables were used to assess the data.

Results: The correlation analysis made between self-care agency and social support revealed that self-care agency had a positive and significant correlation with family support ($r=0.944$, $P < .001$), friend support ($r=.380$, $P < .001$), significant other support ($r=.386$, $P < .001$), and total support ($r=.406$, $P < .001$). It was found that patients with high self-care agency mean scores had high mean scores of support from family, friends, and significant other and total support.

Conclusion: This study revealed that there was a significant correlation between self-care agency and social support in elderly patients who are hypertensive and that social support increased self-care agency. According to these results, attention should be paid to the social support used by patients who are hypertensive.

Keywords: Social support, self-care agency, hypertension, elderly, patient

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Introduction

Today, the number of elderly individuals in the general population in developed and developing countries is rapidly increasing,¹ and although the population the individuals aged ≥ 60 was 900 million in 2015 worldwide, this number is expected to reach 2 billion by 2050.² In addition to the increased incidence of physical, functional, and psychological problems associated with increasing age, the incidence of chronic diseases also increases.³ Hypertension is the most common chronic condition seen among elderly individuals.^{1,4} According to survey data conducted in 2013 in 72 countries, hypertension is an important risk factor associated with increased morbidity and mortality.⁵ In Turkey, it is estimated that approximately 15-16 million patients are hypertensive. The Turkish Hypertension Prevalence Study 2012 states that although the prevalence of hypertension is 5% in individuals aged 18-29 years, this rate increases up to 67.9% in those aged 60-69 years.⁶

To reduce the mortality rates in patients with hypertension, treatment and method of controlling hypertension are important.⁴ As in most chronic diseases, hypertension negatively impacts the individuals' life, causes many complications such as stroke and myocardial infarction when it is not taken under control, and thus bring the necessity of developing a certain lifestyle.⁷ Studies showed that blood pressure control and self-care practices are necessary to reduce the complications developing owing to hypertension.^{8,9} It is known that lifestyle changes reduce blood pressure, prevent or delay the development of hypertension, increase the effectiveness of antihypertensive drugs, and reduce cardiovascular risk.¹⁰ Self-care in hypertension includes taking medication, consuming low-sodium and low-fat diets, doing exercises, limiting alcohol consumption, not smoking, losing weight, controlling blood pressure, conducting regular health control, and reducing stress.^{11,12} However, it is stated that patients who are hypertensive frequently do not apply these self-care practices and are consequently faced with uncontrolled blood pressure.⁸ The uncontrolled hypertension rate is seen more in the elderly population than the young popu-

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lation; this is said to be a result of a lack of self-care behaviors such as treatment, medication use, diet control, and physical activity.⁴ Many factors such as age and social support affect the self-care practices in patients with hypertension.⁸

Social support, which plays a great role in coping, is a cognitive assessment of establishing a reliable connection with the individuals and is defined as the awareness that help can be provided when necessary.¹³ Social support is the product of interpersonal relationships that can act as a protective buffer against stress that can directly affect or damage health.¹⁴ Although it has been stated that motivating the patient is the most important treatment in controlling hypertension, social support from the family such as helping crisis management, sharing information, and caring for the patients with hypertension is stated to encourage the patients to develop positive health behaviors and attitudes; thus, providing motivation positively impacts recovery.¹⁵

Social support is significantly associated with self-care behavior in elderly patients with hypertension.⁴ The presence of social support helps patients who are hypertensive to develop positive self-care behaviors such as taking diets with low sodium and low fat, exercising, limiting alcohol consumption, not smoking, weight management, regular doctor examination, coping with stress, monitoring blood pressure at home, and complying with the medication prescribed.¹⁶⁻¹⁸ This prevents the complications associated with hypertension and enables the patients to perform self-care activities independently. It is very important for nurses to help patients who are hypertensive cope with the disease by activating their social support systems. Therefore, nurses should evaluate the effectiveness of the self-care activities with observation and interview techniques.^{19,20} In particular, the limited number of national studies investigating the impact of social support on self-care agency in elderly patients who are hypertensive revealed the necessity of conducting this study. In addition, it is believed that this study will provide the opportunity to evaluate the support received by elderly patients who are hypertensive and its impacts on nursing care. The aim of this study is to investigate the correlation between social support and self-care agency in elderly patients who are hypertensive.

Materials and Methods

Design of the Study

The study was conducted with descriptive and correlational design.

Location of the Study

This study was carried out in the cardiology outpatient clinic of Firat University Hospital (Elazığ, Turkey) between April and October 2017.

Study Sample

A total of 150 elderly patients with hypertension who applied to the cardiology outpatient clinic of Firat University Hospital between the study dates, who met the inclusion criteria, and who agreed to participate in the study constituted the study sample. For the minimum number of individuals that needed to be included in the sample, the results of a similar study were taken into consideration. It was calculated with Minitab 15 program using $\alpha=0.05$, $P=.09$, and power $=0.80$,²¹ and the minimum number of individuals required for the study was calculated as 145. The inclusion criteria for the patients were determined as (1) being diagnosed with essential hypertension for at least 1 year; (2) being aged ≥ 65 years; (3) having no mental confusion or no psychiatric problem; (4) not having hearing, sight (except for those using glasses), and speech problems; and (5) voluntarily declaring interest to participate in the study. Patients who had secondary hypertension, who had

major psychiatric diseases, who suffered from serious diseases that make it difficult to follow the study protocol, and who were aged <65 years were excluded from the study.

Data Collection Tools

In the study, patient information form, Self-Care Agency Scale, and Multidimensional Scale of Perceived Social Support (MSPSS) were used as the data collection tools. The data collection forms were collected by the researcher through face-to-face interviews with the patients, and it took 25 minutes on average to complete the forms.

Patient information form: This form, prepared by the researchers by reviewing similar studies on patients aged ≥ 65 years who were diagnosed with hypertension,^{4,5,19,22,23} includes sociodemographic variables and disease-related personal information. Whereas sociodemographic data were collected using a total of 13 questions, including age, gender, marital status, educational status, working status, and social security, the disease-related data were collected using a total of 20 questions, including hypertension diagnosis duration, presence of a chronic disease other than hypertension, smoking and alcohol consumption status, regular intake of medications used for hypertension, frequency of hypertension measurement, and lifestyle changes made regarding the disease.

Self-Care Agency Scale: The validity and reliability study of this scale developed by Kearney and Fleischer²⁴ in 1979 was conducted by Nahçıvan²⁵ in 1993. The scale focusing on the individuals' self-evaluation about their status of dealing with self-care activities is based on 4 properties. These are listed as active versus passive responses to situations, motivation, knowledge base, and sense of self-worth. In the 5-point Likert-type scale, the response "It does not describe me at all" is scored 0 points, "It does not describe me much" is scored 1 point, "I have no idea" is scored 2 points, "It defines me a little" is scored 3 points, and "it defines me a lot" is scored 4 points. The scale is composed of 35 items, and the items 3, 6, 9, 13, 19, 22, 26, and 31 are read in reverse and evaluated as negative. The highest score to be obtained from the scale is 140. A score <82 points is considered low, a score between 82 and 120 points is considered moderate, and a score >120 points is considered high. A high total score taken from the Self-Care Agency Scale signifies that the individual is independent and sufficient in performing their own self-care.²⁵ The Cronbach's alpha value of the original version of the scale was found to be 0.89.²⁵ The Cronbach's alpha value was found to be 0.95 in this study.

Multidimensional Scale of Perceived Social Support: This scale was developed by Zimet et al.²⁶ in 1988 to determine the social support elements perceived by individuals. Consisting of a total of 12 items, this scale is a 7-point Likert-type scale (1-7 points) varying between "absolutely no" and "absolutely yes". The scale has 3 subscales consisting of 4 items to determine the family (items 3, 4, 8, and 11), friend (items 6, 7, 9, and 12), and significant other (items 1, 2, 5, and 10) support. The lowest score to be obtained from the subscales is 4, and the highest score is 28. The lowest score to be obtained from the overall scale is 12, and the highest score is 84. A high score indicates that the perceived social support is also high.^{26,27} The Turkish validity and reliability study of the scale was conducted by Eker and Arkar²⁸ in 1995, and they found the Cronbach's alpha value of the scale to be 0.86. In this study, the Cronbach's alpha internal consistency coefficient was found to be 0.92 for the overall study, 0.75 for the family subscale, 0.86 for the friend subscale, and 0.82 for the significant other subscale.

Data Collection

The patient information form and the scales were applied with a face-to-face interview method after providing brief information about the

		n	%
Gender	Female	67	44.7
	Male	83	55.3
Marital status	Married	79	52.7
	Single	13	8.7
	Divorced/widow	58	38.7
Educational status	Illiterate	33	22.0
	Primary school	39	26.0
	Secondary school	31	20.7
	High school	38	25.3
	Bachelor's degree	9	6.0
Working status	Housewife	51	34.0
	Retired	39	26.0
	Civil servant	5	3.3
	Self-employed	13	8.7
	Other (worker, farmer, and others)	42	28.0
Status of living together	Alone	42	28.0
	Spouse	74	49.3
	Children	28	18.7
	Spouse and children	6	4.0
Income level	Good	22	14.7
	Moderate	76	50.7
	Poor	52	34.7
Health insurance	Yes	113	75.3
	No	37	24.7

study and the form before the application and obtaining verbal and written consents from the patients.

Statistical Analysis

The statistical analyses for the evaluation of data were made in the Statistical Package for the Social Sciences (SPSS) software, version 18.0 (IBM Corp.; Armonk, NY, USA). In the data assessment, descriptive characteristics and the disease-related information of the patients were taken as independent variables, the scores obtained from the MSPSS and Self-Care Agency Scale were taken as dependent variables. The compliance of the data to normal distribution was examined by the Kolmogorov-Smirnov test. The Kruskal-Wallis test was used to compare the non-normally distributed data. Descriptive statistics of the data were calculated. Independent *t*-test for the pair-wise comparison and Kruskal-Wallis test for the comparison of multiple groups were used, and the correlation between the study variables was evaluated with Pearson's correlation analysis. Statistical significance was accepted at $P < .05$.

		n	%
Diagnosis duration of HT	1-4 years	79	52.7
	5-8 years	59	39.3
	≥9 years	12	8.0
Regular use status of HT drugs	Yes	52	34.7
	No	98	65.3
Frequency of having regular blood pressure measurements	Once a week	52	34.7
	Once a month	79	52.7
	Once a year	4	2.7
	Other (at random times)	15	10.0
Presence of other chronic diseases	Yes	56	37.3
	No	94	62.7
Presence of HT in first-degree relatives	Yes	76	50.7
	No	74	49.3

HT: hypertension.

MSPSS subscales	Mean±SD	Median	Min.	Max.
Family support	7.42 (3.02)	7.00	4.00	13.00
Friend support	12.46 (4.08)	12.00	7.00	24.00
Significant other support	12.30 (4.20)	11.00	7.00	25.00
MSPSS total score	37.97 (11.33)	34.00	24.00	75.00
Self-care Agency Scale total score	65.67 (22.77)	57.00	35.00	105.00

Max.: maximum; Min.: minimum; MSPSS: Multidimensional Scale of Perceived Social Support; SD, standard deviation.

Ethical Considerations

To conduct the study, approval was received from the Firat University Scientific Ethics Committee (15.03.2017/192007) and permission was obtained from the head physician of the institution where the study was conducted. After the patients included in the study were informed about the purpose of the study, the application method, and the results planned to be obtained, their verbal and written consents were obtained.

Results

Sociodemographic and Disease-Related Characteristics

It was observed that the mean age of the patients was 73.00 ± 6.65 years, 55.3% were male, 52.7% were married, 26.0% had primary school degree, 34.0% were housewives, 49.3% were living with their spouses, and 75.3% had health insurance. More than half of the patients (50.7%) stated their economic status as moderate, and 34.7% stated their economic status as poor (Table 1). It was determined that the mean diagnosis duration of

Table 4. Comparison of Patients' Sociodemographic Data and Multidimensional Scale of Perceived Social Support Scores and Self-Care Agency Scale Scores

Sociodemographic characteristics	Multidimensional Scale of Perceived Social Support				Öz-bakım Gücü Puanı			
	Family support		Friend support		Significant other support		Total score	
	Mean±SD	t/KW, P	Mean±SD	t/KW, P	Mean±SD	t/KW, P	Mean±SD	t/KW, P
Gender								
Female	7.61 ± 3.10	t= 0.439	12.40 ± 3.76	t= -0.180	12.17 ± 3.91	t= -0.339	37.79 ± 10.35	t= -0.177
Male	7.26 ± 2.97	.493	12.52 ± 4.35	.858	12.41 ± 4.45	.735	38.12 ± 12.14	.860
Marital status								
Married ^a	7.87 ± 3.05	KW=12.827	12.25 ± 4.14	KW=2.416	12.03 ± 4.30	KW=2.959	41.53 ± 11.54	KW=3.907
Single ^b	8.76 ± 2.86	.006*	13.69 ± 4.11	.299	14.07 ± 4.83	.228	37.66 ± 11.05	.142
Divorced/widow ^c	6.49 ± 2.81	b>a,c	12.49 ± 4.03		12.28 ± 3.89		37.60 ± 11.54	37.66 ± 11.05
Educational status								
Illiterate ^a	7.34 ± 2.63	KW=5.994	12.37 ± 4.29	KW=4.418	12.34 ± 3.86	KW=0.568	38.28 ± 10.33	KW=2.038
Primary school ^b	6.92 ± 2.89	.502	12.28 ± 3.97	.352	12.38 ± 4.25	.967	38.12 ± 10.87	.729
Secondary school ^c	7.29 ± 3.29		12.58 ± 4.18		11.93 ± 4.00		36.90 ± 11.76	
High school ^d	7.84 ± 3.20		12.97 ± 3.78		12.39 ± 4.39		38.76 ± 11.90	
University ^e	8.55 ± 3.35		11.11 ± 5.20		12.77 ± 5.80		36.55 ± 11.72	
Working status								
Housewife ^a	7.54 ± 2.95	KW=16.852	12.35 ± 4.03	KW=2.411	12.35 ± 4.13	KW=4.260	37.96 ± 10.95	KW=4.120
Retired ^b	8.43 ± 2.85	.001*	12.35 ± 4.57	.661	12.66 ± 4.54	.372	38.38 ± 11.75	.390
Civil servant ^c	10.80 ± 1.30	c>a,b,d,e	15.60 ± 5.85		16.00 ± 6.96		51.20 ± 17.97	
Self-employed ^d	5.75 ± 2.66		13.16 ± 4.76		12.16 ± 4.64		38.16 ± 13.67	
Other (worker, farmer, and others) ^e	6.40 ± 2.93		12.14 ± 3.18		11.52 ± 3.31		35.97 ± 9.06	
Status of living together								
Alone ^a	7.09 ± 2.87	KW=4.781	12.07 ± 3.97	KW=4.706	11.97 ± 3.79	KW=4.242	36.52 ± 10.59	KW=4.243
Spouse ^b	7.71 ± 3.04	.137	12.12 ± 3.94	.195	11.91 ± 4.14	.236	37.08 ± 10.66	0.236
Children ^c	6.70 ± 3.11		13.70 ± 4.11		13.40 ± 4.42		40.92 ± 11.74	
Spouse and children ^d	9.33 ± 3.01		14.00 ± 6.03		14.50 ± 6.15		45.83 ± 18.89	
Income Level								
High ^a	8.63 ± 2.73	KW=11.815	11.77 ± 5.25	KW=4.090	11.90 ± 5.07	KW=6.691	38.00 ± 15.13	KW=3.139
Moderate	7.72 ± 2.99	.006*	12.55 ± 4.06	.129	12.01 ± 4.30	.035**	37.75 ± 11.19	.208
Low ^c	6.45 ± 2.96	c<a,b	12.64 ± 3.59		12.92 ± 3.63	a<b,c	38.29 ± 9.79	

*P < .01; **P < .05; KW: Kruskal-Wallis; SD: standard deviation; t: independent t-test

Disease-related characteristics	Multidimensional Perceived Social Support Score						Self-Care Agency score	
	Family support		Friend support		Significant other support		Total score	
Diagnosis duration of HT	Mean±SD	t/KW, P	Mean±SD	t/KW, P	Mean±SD	t/KW, P	Mean±SD	t/KW, P
1-4 years ^a	7.10 ± 2.83	KW=6.459	11.89 ± 3.97	KW=5.835	11.47 ± 3.75	KW=10.312	35.98 ± 10.06	64.16 ± 21.14 KW=2.105
5-8 years ^b	7.59 ± 3.22	.215	12.74 ± 3.92	.054	12.81 ± 4.28	0.007*	38.71 ± 11.22	.004* 66.93 ± 21.64 .428
9 years and above ^c	8.66 ± 3.17	14.83 ± 4.95		15.25 ± 5.24	a-b,c		47.25 ± 15.17	a<b,c 72.25 ± 21.87
Regular use of HT drugs								
Yes	9.40 ± 2.68	t= 3.050	13.94 ± 4.81	t=3.007	13.84 ± 5.10	t=2.999	42.21 ± 14.17	t=3.018 80.21 ± 18.28 t=6.843
No	6.36 ± 2.65	.001*	11.68 ± 3.41	.001*	11.48 ± 3.38	.001*	35.70 ± 8.74	.001* 58.24 ± 18.89 .001*
The frequency of having blood pressure measured								
Once a week ^a	7.65 ± 2.72	KW=5.186	12.75 ± 4.57	KW=3.207	12.76 ± 4.55	KW=4.264	39.25 ± 12.03	67.15 ± 19.98 KW=0.845
Once a month ^b	7.42 ± 3.12	.427	11.82 ± 3.58	.201	11.79 ± 3.86	.119	36.30 ± 10.25	.082 66.21 ± 22.23 .689
Once a year ^c	9.25 ± 2.21		15.75 ± 5.67		14.75 ± 6.18		46.75 ± 17.03	73.75 ± 16.07
Other (at random times) ^d	6.13 ± 3.52		14.00 ± 3.81		12.73 ± 4.13		39.86 ± 11.96	57.93 ± 22.56
Presence of other chronic diseases								
Yes	7.41 ± 2.62	t= -0.615	12.82 ± 4.35	t= -0.814	12.07 ± 4.26	t=0.533	38.35 ± 11.55	t= -0.320 65.87 ± 19.41 t=0.019
No	7.43 ± 3.26	.970	12.25 ± 3.92	.417	12.45 ± 4.18	.595	37.74 ± 11.26	.750 65.93 ± 22.57 .987
Presence of HT in first-degree relatives								
Yes	7.89 ± 3.07	t=0.702	12.75 ± 3.85	t= -0.853	12.13 ± 4.32	t=0.523	37.84 ± 11.17	t=0.144 68.53 ± 21.90 t= -1.445
No	6.93 ± 2.91	.052	12.17 ± 4.32	.395	12.49 ± 4.11	.602	38.10 ± 11.57	.886 63.17 ± 20.61 .126

* P < .01; KW: Kruskal-Wallis; HT: hypertension; t: independent t-test.

Table 6. The Correlation between the Mean Scores of Multidimensional Scale of Perceived Social Support and Self-Care Agency Scale

		Multidimensional Perceived Social Support score			
Scale		Family support score	Friend support score	Significant other support score	Total social support score
Self-Care Agency Scale score	Pearson's correlation (r)	.944	.380	.386	.406
	P	<.001	<.001	<.001	<.001

r: Pearson's correlation test.

hypertension was 4.76 ± 2.68 years; the mean systolic blood pressure was 155.60 ± 15.60 mmHg (minimum=120 mmHg, maximum=190 mmHg); the mean diastolic blood pressure was 90.46 ± 12.60 mmHg (minimum=60 mmHg, maximum=120 mmHg); 52.7% of the patients had their blood pressure measured once a month; and in 50.7% of the participants, first-degree relatives were diagnosed with hypertension. A total of 62.7% of the patients had other chronic diseases than hypertension (Table 2). Other chronic diseases seen in patients were type-2 diabetes (55.4%), heart failure (16.1%), respiratory system diseases (asthma, chronic obstructive pulmonary disease) (14.3%), chronic renal failure (5.4%), acromegaly (3.6%), vertigo (3.6%), and ankylosing spondylitis (1.8%).

Comparison of Multidimensional Scale of Perceived Social Support Scores and Self-Care Agency Scale Scores With Sociodemographic Data of the Patients

The mean score of the patients from the overall Self-Care Agency Scale was 65.91 ± 21.37 , and their mean score from the overall social support scale was 37.97 ± 11.33 . The patients received support mostly from their friends (12.46 ± 4.08), followed by support from significant other (12.30 ± 4.20) and then support from family (7.42 ± 3.02). The median value of the social support scale score of the patients was 34.00, the minimum score was 24.00, and the maximum score was 75.00 (Table 3).

When the social support mean scores and the sociodemographic data of the patients were compared, a statistical difference was found between the patients' marital statuses and family social support mean score ($P < .05$) and the Self-Care Agency Scale mean score ($P > .05$). It was found that the single patients had the highest mean scores from the social support received from the family and from the Self-Care Agency Scale. The employed patients had the highest mean score from family social support and from the Self-Care Agency Scale ($P < .05$). It was found that the patients with poor income levels had the lowest mean score from family social support and from the Self-Care Agency Scale ($P < .05$). However, it was seen that patients with high-income levels had the lowest score from significant other social support ($P < .05$) (Table 4).

From the result of the study, gender, educational status, and status of living together with patients who were hypertensive did not cause any significant difference in both social support and self-care agency ($P > .05$) (Table 4).

Comparison of Multidimensional Scale of Perceived Social Support Scores and Self-Care Agency Scale Scores With the Patients' Disease-Related Data

In the comparison of the patients' hypertension diagnosis duration and social support mean scores, it was found that patients with the highest hypertension diagnosis duration (≥ 9 years) had higher social support mean scores as well as self-care agency mean scores than patients who were diagnosed with hypertension for a shorter duration.

A significant correlation was only found between the social support mean score from a significant other and the total social support mean score and the diagnosis duration ($P < .05$). The correlation of significant other social support scores and total social support scores of the patients with a diagnosis duration of 1-4 years were found to be the lowest. No statistical difference was found between the diagnosis duration and Self-Care Agency Scale mean score of the patients ($P > .05$). Patients who used their medications regularly were determined to have the highest social support mean scores and Self-Care Agency Scale mean scores ($P > .05$). However, no statistical difference was found between being diagnosed with a chronic disease, frequency of having blood pressure measured, and the diagnosis of hypertension in first-degree relatives and the social support mean scores and Self-Care Agency Scale mean score ($P > .05$) (Table 5).

The Correlation Between the Mean Scores of Multidimensional Scale of Perceived Social Support and Self-Care Agency Scale

When the correlation analysis made between the self-care agency and social support of elderly patients with hypertension was examined, it was found that there was a strong positive and significant correlation between the self-care agency and family support ($r=0.944$, $P < .001$), a weak positive and significant correlation between the self-care agency and support from friends ($r=0.380$, $P < .001$), a weak positive and significant correlation between the self-care agency and support from significant other ($r=0.386$, $P < .001$), and a moderate positive and significant correlation between the self-care agency and total support ($r=0.406$, $P < .001$). Family, friend, significant other, and total support mean scores of the patients with high self-care agency mean score were found to be high (Table 6).

Discussion

It was found that both total social support score and self-care agency mean scores of the patients included in this study were low. However, the scores taken from the friend and significant other social support subscales were moderate, whereas the family social support score was low. It was found that the patients received support mostly from their friends and that the support they received from the family and significant other was less. However, there are studies showing that patients had higher support from their families.^{29,30} Marin-Reyes and Rodriguez-Moran³¹ in 2001 found that compliance with hypertensive treatment was associated with the support of the family members. Although the most effective source for social support is family members and relatives, both family and friends' supports are needed for a sufficient social support perception. It is stated that a network of friends, consisting of many and closely connected people, reduces the feeling of loneliness and that the establishment of satisfactory friendship relationships depends on the mutual support exchange, unlike that seen in family relations.³² Social support is important in the long-term management of hypertension, and strong perceived family support or friend support will increase individual motivation. It is possible for a

motivated patient with hypertension to comply with the therapeutic plans and therefore achieve better blood pressure control.¹⁵

In this study, self-care agency mean scores of the single patients were found to be the highest. It was seen in similar studies that single patients had higher self-care agencies.^{19,33} In this study, it was also found that the employed patients had the highest mean score from Self-Care Agency Scale. In the study by Bakoğlu,²² it was observed that the self-care agency of employed patients was better than that of the unemployed patients and that employment had a significant and positive effect on the self-care agency level. In this study, it was observed that as the income of the patients decreased, their self-care agency mean scores also decreased. In their study, Uğurlu et al.³⁴ found that the elderly individuals with high-income levels had higher self-care agency. Similarly, in their study, Karakurt et al.¹⁹ found that patients with higher income than expenses had high self-care agency scores. It is stated that income status and socioeconomic levels are effective factors impacting the mental and physical health of patients and can affect the quality of life.^{12,35} In their study, Mohammad Pour et al.³⁶ concluded that economic factors may affect quality of life and cause changes. Accordingly, working and having a good income level suggested that patients benefited from the healthcare institution better, and thus, their quality of life can be better.

In this study, it was found that patients using their medication regularly had the highest social support mean scores and self-care agency mean scores. The most important factor that plays a role in the effectiveness of the treatment is the patient's compliance with treatment. Compliance is the compliance dimension of the patient's behaviors with clinical recommendations in terms of using medications, applying diet, or fulfilling other lifestyle changes.¹ It is stated that sufficient coping and social support are important in compliance with the treatment of chronic diseases and that self-care behaviors are also one of the main determinants.¹⁶ In a study, it was stated that receiving social support accelerated the healing process and encouraged self-care behaviors.²³ Friedmann et al.³⁷ in 2014 stated that social support taken from family and friends can be a facilitating factor in improving health outcomes and compliance with treatment. Owing to the physical and emotional inadequacies seen in elderly people, care needs increase among them, and supporting people are needed for obtaining and using their drugs.³⁸ Nonadherence to drug therapy is an important and effective factor in both failure to maintain normal blood pressure and an increase in the incidence of complications associated with hypertension.¹ In their study, Anadol and Dişçigil³⁹ reported that patients who were not compliant with treatment had worse blood pressure control than those who were compliant. Bezerra et al.⁴⁰ in 2014 stated that 87.0% of patients who were hypertensive complied with the treatment. Wanasirikul et al.⁴¹ in 2016 stated that a great majority of elderly individuals receiving antihypertensive treatment had good compliance with the drug treatment. On the other hand, some studies reported that 85.5% of elderly individuals did not use their medication regularly and that 24.0% of them forgot to take their medications,⁽⁴²⁾ that there was incorrect drug use in individuals aged ≥ 75 ,⁴³ and that 57.7% of elderly patients using antihypertensives made a mistake in using their medications.⁴⁴

In this study, it was determined that patients with the longest duration of hypertension diagnosis had higher social support mean scores and self-care agency mean scores than those who received hypertension diagnosis in a shorter duration. The same results were observed in similar studies. Karakurt et al.¹⁹ stated that patients who were diabetic with a diagnosis duration ≥ 11 years had higher self-care agency mean scores; Lee and Park⁵ in 2017 found that the elderly patients with hypertension

having a diagnosis duration ≥ 10 years had higher self-care behavior mean scores. In their study, Lee et al.⁴⁵ in 2010 found that patients having a longer duration of hypertension had higher self-care scores.

Social support can affect the patient's self-motivation. It is stated that social support is very important for elderly people to cope with hypertension and to comply with treatment indirectly.⁴⁶ In this study, examining the correlation analysis between self-care agency and social support of patients with hypertension showed a significant and positive correlation between self-care agency and support from family, friends, and significant other and total social support. Family, friend, significant other and total support mean scores of the patients with high self-care agency were also high. In similar studies, it was found that these 2 factors impacted each other positively. Flynn et al.⁴⁷ showed that high social support had a positive correlation with hypertension self-care practices. Findings from a study conducted by Chang and Lee⁴ in elderly patients who were hypertensive showed that self-care agency increased in elderly individuals as their social support levels increased. Graven et al.⁴⁸ showed that increasing social support levels directly increased self-care behaviors. Ademe et al.⁸ revealed that social support had a positive correlation with self-care practices in patients who are hypertension. These results confirmed the critical role of social support in promoting self-care behaviors. The results of this study indicated that the involvement of the patients' family and friends would play an important role in increasing self-care behaviors.

Conclusion

In this study, it was found that patients who were hypertensive had low self-care agency and that patients received support mostly from their friends, followed by support from family and significant others. It was determined in the study that marital status, working status, and income status impacted hypertension self-care agency. It was observed that there was a positive and significant correlation between self-care agency and social support and that high social support levels of the patients had a positive effect on self-care agency. In addition, there was a strong and positive significant correlation between self-care agency and family social support mean scores, a subscale of the social support scale. According to these results, attention should be paid to providing information about developing social support and self-care behaviors in patients who are hypertensive; to considering characteristics such as marital status, working status, and income status in planning hypertension self-care training; and to taking individual characteristics of the elderly patients with hypertension into account. While evaluating the self-care agency of the hypertensive patients and ensuring their involvement in their own care, attention should be paid to their social support resources. In addition, it is recommended that this study be repeated in larger samples to test its validity.

Ethics Committee Approval: Ethics committee approval was received for this study from the Firat University (15.03.2017/192007) and the chief physician of the institution where the study was conducted.

Informed Consent: Oral and written consents were obtained from the patients included in the study after necessary explanations were given about the purpose of the study, the method of application and the planned results.

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