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ARAŞTIRMA

EVALUATION OF THE BURDEN OF CARE AND SELF EFFICACY OF THE CAREGIVER FAMILY MEMBERS OF PATIENTS WITH CEREBROVASCULAR DISEASE

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ABSTRACT

Aim: *The present study aimed to evaluate the burden of care and self-efficacy of the caregiver family members of the patients with cerebrovascular disease.*

Methods: *The study sample included 250 caregiver family members of the patients treated due to the diagnosis of cerebrovascular disease between January 2011 and December 2012 at the Izmit Seka State Hospital. Data were collected using the forms describing the characteristics of the caregivers and the patients, "Caregiver Burden Scale", "Self Efficacy Sufficiency Scale" and " Barthel Activities of Daily Living Index".*

Results: *The mean score of the caregivers included in the study from the caregiver burden scale was 48.41±8.88. The caregivers' mean total score for self-efficacy sufficiency was 82.21±10.33. There was a positive and poorly significant correlation between the mean total score for caregiver burden and the sub-dimension of starting the behavior (p=0.038, r=0.131) and negative and poorly significant correlation between the sub-dimension of struggling with obstacles (p=0.007, r=-0.170).*

Conclusion: *As a result of the research, it was determined that there is a relationship between care burden and self efficacy of the caregivers who give care to patients with cerebrovascular disease. It is recommended that caregivers should be supported because of the care burden and self efficacy.*

Keywords: *Caregivers; Cerebrovascular Disorders; Nursing; Self Efficacy*

ÖZET

Serebrovasküler Hastalığı Olan Hastalara Bakım Veren Aile Üyelerinin Bakım Yükü ve Öz Etkililiklerinin Değerlendirilmesi

Amaç: *Çalışmada, serebrovasküler hastalığı olan hastalara bakım veren aile üyelerinin bakım yükü ve öz etkililiklerinin değerlendirilmesi amaçlanmıştır.*

Yöntem: *Çalışmanın örneklemini, İzmit Seka Devlet Hastanesi'nde Ocak 2011-Aralık 2012 tarihleri arasında serebrovasküler hastalık tanısı nedeniyle tedavi almış hastalara bakım veren 250 aile üyesi oluşturmuştur. Veri toplama, hastaların evlerine gidilip bakım verenler ile yüz yüze görüşülerek yapılmıştır. Veriler, bakım veren ve hasta bireyi tanımlayıcı özellikler formları, ''Bakım Verme Yükü Ölçeği'', ''Öz Etkililik Yeterlik Ölçeği'' ve ''Barthel Günlük Yaşam Aktiviteleri İndeksi'' kullanılarak toplanmıştır.*

Bulgular: *Araştırmaya katılan bakım verenlerin bakım verme yükü ölçeğinden aldıkları puan ortalaması 48.41±8.88 bulunmuştur. Bakım verenlerin öz-etkililik yeterlik ölçeği toplam puan ortalaması ise 82.21±10.33 olarak saptanmıştır. Bakım verme yükü ölçeği toplam puan ortalaması ile davranışa başlama alt boyutu arasında pozitif yönde zayıf düzeyde anlamlı (p=0,038, r=0,131) ve engellerle mücadele alt boyutu ile de negatif yönde zayıf düzeyde anlamlı bir ilişki olduğu belirlenmiştir (p=0,007, r= -0,170).*

Sonuç: *Araştırma sonucunda, serebrovasküler hastalığı olan hastalara bakım verenlerin bakım yükü ile öz yeterlik arasında ilişki olduğu saptanmıştır. Bakım yükü ve öz etkililik açısından bakım verenlerin desteklenmesi önerilmektedir.*

Anahtar Kelimeler: *Bakıcılar; Serebrovasküler Bozukluklar; Hemşirelik; Öz Yeterlik*

INTRODUCTION

Neurological disorders are important causes of mortality in industrialized countries after coronary heart disease and cancer (WHO 2006; AHA 2009). Cerebrovascular disease (CVD) is defined as "clinical findings lasting longer than 24 hours or causes death, because of the rapidly evolving focal or global disturbance of cerebral function" (WHO 2008). Approximately 5 million people die and 5 million people suffer

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permanent damage due to CVD (WHO 2014). In Turkey, 24.3% of deaths are reported to be caused by cerebrovascular diseases (TUİK 2015).

CVD has a large physical, emotional and socio-economic impact on the patient, family and health services (WHO 2006). Some of the symptoms and complications that may occur in the CVD patients are; musculoskeletal and motor disorders (paralysis, spasticity), sensory problems (vision, sensation, agnosia), cognitive disorders (attention deficit, memory problems), language and communication disorders (aphasia, dysarthria), gastrointestinal problems (urinary-fecal incontinence, dysphagia) and psychosocial problems (depression, social isolation) (Duraski 2012; Durna and Tülek, 2012). CVD causes significant changes in both patient's and caregiver's lives. Stroke patients need support from family caregivers for treatment, care and rehabilitation. Caregiving which is very difficult to adapt, is a process that can affect the caregiver physically and psychologically (King, Ainsworth, Hortke and Ronen 2010). Caring for CVD patients, takes time, needs physical and emotional efforts, and caregivers can experience high burden, anxiety or depressive symptoms. Caregivers can feel caregiving as a burden because of the impact of the challenges faced in this process. This is defined as the care burden of caregivers (Kasuya, Polgar and Takeuchi 2000). For caregiver to continue this difficult process with feeling of minimal burden and improve quality of care, there should be the adoption of a holistic approach and patients with CVD should be evaluated together with caregivers (Tuna and Olgun 2010).

Self efficacy is the belief that the individual will be able to cope with difficult situations that he or she will encounter and greatly affect how the individual will behave in difficult situations. Individuals with high self-efficacy can easily handle with hard situations (Luszczynska, Benıght and Cıeslak 2009; Harmell, Allıson, Ancolı-Israel, Dımsdale, Grant, Kanel et al. 2011).

The nurse, who is always with the patient and caregiver, should help to make the patient adapt to the illness and to uncover the strengths of the caregiver in the nursing process. The fact that the nurse helps the caregiver to identify himself / herself helps both the caregiver to maintain the good condition and maintain the quality in a good manner (Mollaoğlu, Fertelli and Tuncay 2011). Defining the caregiver burden can be a guide for nursing interventions planned to reduce the care load of caregiving family members. This study was conducted to evaluate the caregiver burden and self-efficacy of caregiver family members with cerebrovascular disease.

METHODS

Study Design: The study was based on a descriptive design. The study sample consisted of a total of 210 caregivers determined using a power analysis method. The minimum specimen size to be obtained with 80% power and 5% error with a deviation of ±10% in this study is 210 persons. The study was conducted with 250 caregivers, for possible questionnaires those may be incorrect or incomplete.

Population: The study was performed on primary caregiver family members providing care to patients receiving treatment with CVD between January 2011 and December 2012 at the Izmit Seka Public Hospital which is administratively affiliated to the Kocaeli Public Hospitals Institution. Inclusion criteria for the caregivers were: being at least 18 years of age, residing in the provincial center of Kocaeli or in one of Kocaeli province's districts, being willing to take part in the study, being a primary caregiver family member of the patient.

Procedure and Data Collection: The study data were collected between August 2013 (at least 9 months home care after the hospital) and December 2013 from family members who are the caregivers of patients receiving treatment between January 2011 and December 2012 at Neurology clinic of the Izmit Seka Public Hospital. The telephone numbers of the CVD patients' relatives were found by examining the hospital's records, and the patients' primary caregivers were contacted. The caregivers were informed about the reason and purpose of the study, and told that participation to the study is entirely of a voluntary basis. Data collection was performed by visiting the patients' homes and conducting face-to-face interviews with the caregivers. Participating caregivers were asked to complete The Caregiver Characteristics Form, The Patient Characteristics Form, The Caregiver Burden Scale and The Self Efficacy Sufficiency Scale. The Barthel Activities of Daily Living Index, which is used to determine the patient's level of dependence, was applied by the researcher.

The Caregiver Characteristics Form: The form was developed by the researcher based on an review of the literature (Şahin, Ergüney and Polat 2009; Zaybak, Güneş, İsmailoğlu and Ülker 2011). Consists of items inquiring the caregiver's age, gender, education level, occupation, occupational status, social security, level of income, marital status, number of children, location of residence and degree of relationship with the patient. The form also includes items asking whether the caregiver lives with the patient, whether the caregiver has any diseases/health problems, the duration of time care has been provided, the caregiver's knowledge/education regarding the disease, the area where the caregiver provides the most support, and whether there are any other persons assisting with the care of the patient.

The Patient Characteristics Form: Consists of 10 items prepared by the researcher. The form includes inquiring the patient's age, gender, marital status, number of children, education level, occupation, occupational status, social security, other diseases/health problems aside from his/her current CVD, and the time when the CVD was first diagnosed.

Caregiver Burden Scale (CBS): The Caregiver Burden Scale was developed by Zarit, Reever an Bach-Peterson in 1980 to assess the burden of caregivers who are taking care of person with diseases or elderly persons (Zarit and Zarit 1990). The scale consists of 22 questions. It has a 5-point likert type. The minimum and maximum scores for this scale are 0 and 88, respectively. A higher score on this scale signifies a higher perceived burden of care for the caregiver (Yüksel, Karlıkaya, Şıpka, Tireli and Varlıbaş 2007). Inci and Erdem (2008) found Turkish validity and reliability of the scale and found the validity coefficient to be 0.94 and the reliability coefficient to be 0.95. In this study, Cronbach's Alpha score is 0.79.

Self Efficacy Sufficiency Scale (SESS): Self efficacy sufficiency scale consists of 23 items. The minimum and maximum scores for this scale are 23 and 115, respectively (Ülgen, Öztürk and Armstrong 2012; Orgun and Karaoz 2014). It consists of four sub-dimensions, which are starting the behavior, continuing the behavior, completing the behavior, and struggling with obstacles. A high total score in this scale is indicative of a high level of perceived self efficacy, while a low score is indicative of a low level of perceived self efficacy (Yıldırım and İlhan 2010). In Gözüm and Aksayan (2008)'s study Cronbach's Alpha score of the scale is 0.81 (Gözüm and Aksayan 2008). In this study, it was found that Cronbach's Alpha score of the scale is 0.77.

Barthel Activities of Daily Living Index (BADLI): The Barthel Activities of Daily Living Index was developed to assess performance in daily life activities and is commonly used for monitoring functional changes associated with cerebrovascular diseases (Mollaoğlu, Fertelli and Tuncay 2011; Koç, Büker, Kıter and Şavkın 2012). Scoring system, which is between 0 and 100, is based on the extent to which the individual requires assistance for these activities (Malak and Dicle 2008; Aksakallı, Şendur and Turan 2009).

Ethical Consideration: Oral and written consent has been obtained from surveyed patients and caregivers, and the official approval obtained from Izmit Seka State Hospital. Throughout the study, the researchers ensured patients' rights according to the ethical principles for medical research on human beings set out in the Declaration of Helsinki. An approval has received from the ethics committee of the University of Ankara for the purpose of evaluating the ethics suitability of the research.

Data Analysis: In this study, categorical data were described using numbers and percentage, while continuous data were represents using arithmetic mean±standard deviation. The Student's t test (Independent Sample t test) was used for comparisons between two groups, while comparisons between three or more groups was performed using the One Way Analysis of Variance (OneWay ANOVA-F Test). In cases where the comparison between three or more groups revealed results that were statistically significant, the Tukey HSD test was used to identify the groups between which the difference existed. The Pearson correlation analysis was used to determine the direction and degree of relationship between two variables.

RESULTS AND DISCUSSION

The characteristics of the caregivers and patients are shown in Table 1. The mean CBS scores are shown in Table 1. The mean CBS score of caregivers was 48.41±8.88. Aşiret and Kapucu (2012) emphasize that caregivers have a light/moderate burden of work with stroke patients and that is a burden at this point can affect caregiving. It has been determined that where the caregivers live makes a difference in the care burden points. The location of residence of the caregiver was found to be associated with a statistically significant difference in mean CBS scores ($p=0.018$). As such, caregivers living at a greater distance from the provincial center had higher mean CBS scores (49.88±7.53) than those living in the provincial center (47.58±9.47). It can be considered that caregivers living far away from the center of the city have more difficulties in providing healthy home and environment conditions and reaching medical equipment and health professionals. Daughter-in-law and grandchild caregivers were found to have a significantly higher mean CBS score than the other groups (p=0.04). It was found that, caregiver spouses had lower mean CBS scores (45.89±6.89) than daughter-in-law and grandchild caregivers (50.38±5.59). This result suggests that first-degree relatives perceive the caregiving process as part of their social roles and responsibilities. A significant difference was identified in terms of mean CBS scores between caregivers who described providing psychological support to patients (46.88±9.38) and those who did not (48.72±9.26) (p=0.007). This suggests that caregivers who provide psychological support to their patients feel that they are also feeling spiritual relaxation. It was determined that the level of dependence led to statistically significant differences in the mean CBS scores (p<0.05). The mean CBS scores of caregivers taking care of fully dependent patients was higher than the caregivers taking care of patients with an advanced level of dependence (p=0.010). Yüksel and colleagues (2007) study found a significant increase in the caregiver's burden as the patients' dependency level increased. Mollaoğlu and colleagues (2011) found a positive relationship between the levels of dependence and care burden in daily activities of patients and stated that caregivers of patients who is dependent on others in their daily life activities perceive the burden of care more.

The mean total scores for the self efficacy scale are provided in Table 1. The mean SESS total score of caregivers was 82.21±10.33. It is seen that the total score of self efficacy is above the average of the scores of caregivers participating in the study but not at the desired level. There are studies in the literature that evaluate the self efficacy of caregivers for individuals with serebrovascular disease. These studies stated that caregivers with high self efficacy can cope more easily with the symptoms of their patients (Tang and Chen, 2002; Robinson-Smith and Pizzi 2003; Porter, Baucom, Garst, Keefe and Mcbrıde 2008; Rabinowitz, Saenz, Thompson, Gallagher-Thompson 2011; Kruithof, Post, Van Mierlo, Van Den Bos, Man Van Ginkel, Visser-Meily 2016). A comparison of the total SESS scores with the degree of relationship between caregiver and patient revealed statistically significant differences between the groups (p=0.032). It was found that the total SESS scores of caregivers who are the siblings of the patients were lower (75.15±16.70) than the others. Considering that the average age of the patients participating in the study is 76.66±10.28, it can be assumed that the siblings are over 65 years old, too. This result may be due to the fact that caregiver siblings also think that they will not be able to care for the patient because of possible health problems and physical disabilities. The total SESS score of caregivers who financially support their patients was found to be lower (80.43±11.40) than the total SESS score of caregivers who do not (83.47±9.32) (p=0.021). The inability of the patient and caregiver to work, the financial support of the caregiver to the patient and the financial difficulties of the family due to the economical aspects of the care may reduce beliefs that the family members can provide active care. In addition, the total SESS score of caregivers who receive support in taking care of their patients was found to be higher than (84.03±9.33) who do not receive such support (81.25±10.71) (p=0.043). It can be assumed that caregivers are more comfortable with their social support from their environment and they believe that they will be able to accomplish any task successfully during the care process (Table 1.

Table 1. The Distribution of CBS and SESS Total Scores with Respect to the Characteristics of the Caregivers and Patients (n=250).

Descriptive Characteristics	n (%)	CBS X±SD	CBS Test Value Significance (p)	SESS-Total X±SD	SESS-Total Test Value Significance (p)
Caregivers					
Age					
20-40	39 (15.6)	47.00 ± 8.87	F=1.888	82.97 ± 10.43	F=2.66
41-60	141 (56.4)	49.36 ± 9.52		83.19 ± 9.08	
61-80	70 (28)	48.41 ± 8.88	p=0.154	79.81 ± 12.23	p=0.07
Gender					
Female	169 (67.6)	47.77 ± 8.74	t=1.654	81.87 ± 10.09	t=0.743
Male	81 (32.4)	49.75 ± 9.05	p=0.099	82.91 ± 10.83	p=0.458
Education Level					
Literate	9 (3.6)	46.33 ± 9.51	F=1.370	83.55 ± 6.50	F=1.527
Elemantary School	117 (46.8)	47.76 ± 8.64		81.17 ± 10.92	
High School	113 (45.2)	49.53 ± 9.01	p=0.253	82.64 ± 9.93	p=0.208
University	11 (4.4)	45.54 ± 9.01		87.63 ± 9.17	
Occupational Status					
Working	17 (6.8)	46.23 ± 10.51	t=1.049	85.58 ± 7.99	t=1.398
Not Working	233 (93.2)	48.57 ± 8.75	p=0.295	81.96 ± 10.45	p=0.163
Level of Income **					
Income Lower than Expenses	159 (63.6)	49.01 ± 8.03	t=1.422	81.76 ± 9.82	t=0.912
Income and Expenses Roughly Equal	91 (36.4)	47.36 ±10.15	p=0.156	83.00 ± 11.16	p=0.363
Marital Status					
Married	238 (95.2)	48.21 ± 8.80	t=1.604	81.98 ± 10.31	t=1.535
Single	12 (4.8)	52.41 ± 9.81	p=0.110	86.66 ±9.92	p=0.126
Number of Children					
0	12 (4.8)	52.41 ± 9.81	F=2.262	86.66 ± 9.92	F=2.279
1	11 (4.4)	43.27 ±10.33		87.36 ± 7.06	
2	122 (48.8)	48.86 ± 9.06	p=0.082	82.45 ± 10.58	p=0.079
3 or more	105 (42)	47.98 ± 8.22		80.88 ±10.15	
Location of Residence					
Provincial Center	160 (64)	47.58 ± 9.47	F=3.676	82.40 ± 11.07	F=2.533
Outside the Provincial Center	90 (36)	49.88 ± 7.53	**p=0.036**	81.87 ± 8.91	p=0.702

The Degree of Relationship Between Caregiver and Patient					
Mother	4 (1.6)	41.50 ±11.26		82.25 ± 2.98	
Sibling	19 (7.6)	47.89 ± 9.55	F=2.570	75.15 ± 16.70^{a§}	F=2.687
Spouse	55 (22)	45.89 ±6.89*		81.67 ± 8.48	
Child	125 (50)	49.08 ± 9.35	**p=0.04**	83.16 ±10.05^{a}	**p=0.032**
Daughter in Law/Grandchild	47 (18.8)	50.38 ±8.59*		83.17 ± 9.30§	
Caregiver Living with Patient					
Yes	184 (73.6)	48.51 ± 8.93	t=0.282	82.74 ± 9.59	t=1.363
No	66 (26.4)	48.15 ± 8.80	p=0.779	80.72 ±12.10	p=0.174
Caregiver with Health Problems					
Yes	102 (40.8)	48.42 ± 8.62	t=0.008	80.93 ± 11.08	t=1.633
No	148 (59.2)	48.41 ± 9.08	p=0.993	83.09 ± 9.71	p=0.104
Obtains Information About Diseases and Care					
Yes	206 (87.4)	48.62 ± 8.93	t=0.809	82.44 ± 10.75	t=0.776
No	44 (17.6)	47.43 ± 8.63	p=0.419	81.11 ± 8.06	p=0.438
Provides Psycological Support					
Yes	124 (49.6)	46.88 ± 9.38	t=2.734	82.55 ± 10.92	t=0.522
No	126 (51.4)	49.92 ± 8.11	**p=0.007**	81.87 ± 9.74	p=0.602
Provides Financial Support					
Yes	104 (41.6)	47.98 ± 8.33	t=0.653	80.43 ± 11.40	t=2.319
No	146 (58.4)	48.72 ± 9.26	p=0.514	83.47 ± 9.32	**p=0.021**
Another Person Assisting with Care					
Yes	86 (34.4)	47.59 ± 10.58	t=1.061	84.03 ± 9.33	t=2.033
No	164 (65.6)	48.84 ± 7.83	p=0.290	81.25 ± 10.71	**p=0.043**
Patients					
Time of Diagnosis					
At least 5 years ago	12 (4.8)	46.33 ± 11.55		88.91 ± 7.83	
4-3 years	45 (18)	48.73 ± 10.04	F=0.339	80.73 ± 11.74	F=2.58
2-1 years	93 (37.2)	48.10 ± 9.02	p=0.797	83.11 ± 11.03	p=0.05
Less than 1 year	100 (40)	48.81 ± 7.89		81.23 ± 8.88	
Barthel Activities of Daily Living Index					
Fully Dependent					
Advance Dependence	142 (56.8)	49.67 ± 9.23	t=2.602	82.75 ± 10.92	F=0.903
	108 (43.2)	46.75 ± 8.14	**p=0.010**	81.50 ± 9.49	p=0.343

**Since there as only one person with an income level greater than expenses, this person was included into the group where income and expense levels were roughly equal

*, §, ^{a} Groups where differences were identified based on the Tukey HSD test

Table 2. Evaluation of SESS Sub-Dimensions According to the Characteristics of the Caregivers and Patients

Descriptive Characteristics	Starting the Behavior	Continuing the Behavior	Completing the Behavior	Struggling with Obstacles
Caregivers				
Age				
Gender				
Education Level				
Occupational Status				
Level of Income			*	
Marital Status		*		
Number of Children		*		
Location of Residence				
The Degree of Relationship Between Caregiver and Patient			*	
Caregiver Living with Patient				
Caregiver with Health Problems				*
Obtains Information About Diseases and Care				
Provides Psychological Support				
Provides Financial Support				
Another Person Assisting with Care				*
Patients				
Time of Diagnosis		*		
Barthel Activities of Daily Living Index (BADLI)				

According to Table 2, the marital status, number of children, time of diagnosis of the patients affected the “continuing the behavior” sub-dimension. It was found that the caregivers who are single more qualified to continuing the behavior than who are married (p=0,031, t=2,166) and the caregivers who do not have children are more qualified to continuing the behavior than who have children (p=0,026, F=3,145). This may be due to the fact that caregivers, who do not have any responsibility, may feel less difficulty in maintaining continuity of care. In the study, it was found that the caregivers of patients who were diagnosed with cerebrovascular disease more than 5 years ago were more adequate to maintain the continuity of care. (p=0,01, F=3,77). It can be thought that the caregivers, who believe that they cannot succeed in the problems of care in the early stages of the disease, can continue their behavior more effectively by accepting their responsibility based on their own old experiences over the years.

The income level and degree of relationship to the patient of the caregiver affected the “completing the behavior” dimension. Caregivers may experience not only physical but also financial problems in the care process. Financial problems of caregivers may reduce their belief that they can complete patient’s care. In the study, it was found that the brothers or sisters who cared for patients with cerebrovascular disease have more difficulty in completing the caring process than other family members (p=0,002, F=4,460). This may be due to other responsibilities of the brothers or sisters who undertakes the care.

The health problems of the caregivers and the presence of another persons assisting the caregiver affected the “struggling with obstacles” dimension (Table 2.). Caregivers with health problems may be considered to be less likely to struggle with obstacles because of the burden of managing their own health problems as well as giving care to their relatives, compared to caregivers who have no health problems (p=0,033, t=2,148). It can be said that caregivers who do not have any health problems can cope more easily with the difficult process of care.

The presence of another person in the care process that helps the caregiver may have increased their belief that caregivers can struggle with the obstacles they may face (p=0,025, t=2,250). Sharing the burden of care and responsibility with others make caregivers feel supported, motivete them and make it easier to cope with difficulties.

In the literature, no studies evaluating self efficacy sub-dimensions according to the descriptive characteristics of caregivers have been found, so they have not been discussed with other research findings.

An evaluation of Table 3 reveals a positive and poorly significant relationship between the CBS and starting the behavior scores, as well as a negative and poorly significant relationship between the CBS and struggling with obstacles score (Table 3.). In the literature, no other study evaluating the self-efficacy and care burden of caregiver family members with CVD was found. According to the results of the study; while caregivers feel less burden of care in the initial stages of care, it is thought that care burden will increase over time. In addition, the ability of the caregiver to struggle with the obstacles can be said to cause lesser care burden.

Table 3. The Relationship of CBS Scores with the SESS Scores and Sub-Dimensions

	SESS-Total	**Starting the Behavior**	**Continuing the Behavior**	**Completing the Behavior**	**Struggling with Obstacles**
CBS	r:0.042 p:0.513	**r:0.131** **p:0.038**	r:-0.050 p:0.435	r:0.102 p:0.107	**r:-0.170** **p:0.007**
SESS-Total		**r:0.827** **p:0.001**	**r:0.768** **p:0.001**	**r:0.750** **p:0.001**	**r:0.412** **p:0.001**
Starting the Behavior			**r:0.559** **p:0.001**	**r:0.466** **p:0.001**	**r:0.097** **p:0.126**
Continuing the Behavior				**r:0.333** **p:0.001**	**r:0.187** **p:0.003**
Completing the Behavior					**r:0.261** **p:0.001**

CONCLUSION

In the study, the following results were obtained: The mean CBS score of caregivers was 48.41±8.88. It was determined that the place where the caregiver lived, the degree of relationship between caregiver and patient and the psychological support status affected the burden of care (p<0,05). According to the study, the dependence level of the patient affects the burden of care (p<0,05). The mean total SESS score of the caregivers was 2,21 ± 10,33. It was determined that the degree of relationship between caregiver and patient, the level of financial support, and the presence of the person who helped the care had an effect on the total score of the SESS. It was found that caregivers' marital status, number of children and patient's time of diagnosis affected the mean scores of maintaining behavior. The income status of caregivers and the degree of relationship between caregiver and patient were found to affect the mean scores of completing the behaviors. The health problems of caregivers and the presence of another person in the care process were found to affect the mean score of the struggle with the obstacles. In the study it was found that a positive and slightly significant relationship between the CBS and starting a behavior scores, as well as a negative and slightly significant relationship between the CBS and struggling with obstacles score.

According to the results of the study; It is recommended that caregivers should be directed to the units where they can receive training and consultancy services about their care burden. It is recommended that training programs should be given to pre-discharge caregivers in hospitals to increase their self-efficacy. Caregivers should be evaluated in terms of the burden of care after discharge. Caregivers should be supported by other members of their family. This is necessary for maintaining the caregiver's belief in his/her ability to take care of the patient. It is necessary to encourage caregivers to take health checks and to give importance to themselves. It is recommended that more research should be done to evaluate care burden and self efficacy in long-term care-requiring diseases. It is emphasized that caregivers should be especially supported during the first years.

It is believed that the findings of this study might assist with the training of persons providing care at home and help nurses develop a more holistic approach towards caregivers and their patients.

REFERENCES

Aksakallı E, Şendur F, Turan T. Outcome Scales in Stroke Rehabilitation. Turkish Journal of Physical Medicine and Rehabilitation 2009; 55:168-72.

American Heart Association. Heart Disease and Stroke Statistics. Circulation 2009; 119:21-181. doi: 10.1161/CIR.0b013e3182365a77

Aşiret DG, Kapucu S. Care Burden of the Patient Relatives Who Take Care of the Patients With Stroke. Journal of Nursing Research and Development 2012; 2:73-80.

Duraski SA, Danzy LV, Sullivan S. Rehabilitation Nursing: A Contemporary Approach to Practice. 2012, Burlington: Jones & Bartlett Learning

Durna Z, Tülek Z. Chronic Disease and Care. 2012; 239-60 İstanbul: Nobel Medical Bookstore.

Harmell LA, Allıson AM, Ancolı-Israel S, Dımsdale EJ, Grant I, Kanel VR, Mausbach TB, Mılls JP, Moore R, Patterson LT, Roepke KS, Zıegler GM. The Relationship Between Self-Efficacy and Resting Blood Pressure in Spousal Alzheimer's Caregivers. National Instıtutes of Health, Br J Health Psychol 2011; 16(2):317-28.

İnci HF, Erdem M. Validity And Reliability of the Burden Interview And Its Adaptation to Turkish.

Malak TA, Dicle A. Burden of Caregivers for Patients With Brain Tumors And Affecting Factors. Turkish Neurosurgery Journal 2008; 18(2):118-21.

Journal of Atatürk University School of Nursing 2008; 11:85-95.

Kasuya RT, Polgar B, Takeuchı R. Caregiver Burden And Burnout. Postgraduate Medicine 2000; 108(7):119-23.

King BR, Aınsworth RC, Hartke JR, Ronen M. Stroke Caregivers: Pressing Problems Reported During the First Months of Caregiving. J Neurosci Nurs 2010; 42(6):302-11.

Koç S, Büker N, Kıter E, Şavkın R. The Effects of Independence And Depression Level on Patients Satisfaction With Nursing Care in Orthopedics And Traumatology Patients. The Journal of Kartal Training and Research Hospital 2012; 23(3):130-6.

Kruithof JW, Post MWM, Van Mierlo ML, Van Den Bos GAM, Man-Van Ginkel JM, Visser-Meily JMA. Caregiver Burden And Emotional Problems in Partners of Stroke Patients at Two Months And One Year Post-Stroke: Determinants And Prediction. Patient Education and Counseling 2016; 99:1632-40.

Luszczynska A, Benıght CC, Cıeslak R. Self-Efficacy And Health-Related Outcomes of Collective Trauma. European Psychologist 2009; 14(1):51-62.

Mollaoğlu M, Fertelli KT, Tuncay ÖF. Care Burden of Care Givers of Stroke Patients And Related Factors.

Dokuz Eylul University Electronic Journal of Faculty of Nursing 2011; 4(3):125-30.

Orgun F, Karaoz B. Epistemological Beliefs And The Self-Efficacy Scale in Nursing Students. Nurse Education Today 2014; 34:37–40.

Porter SL, Baucom D, Garst J, Keefe JF, Mcbrıde MC. Self-Efficacy for Managing Pain, Symptoms, And Function in Patients With Lung Cancer And Their Informal Caregivers: Associations With Symptoms & Distress. National Instıtues of Health, Pain 2008; 137(2):306-15.

Rabinowitz YG, Saenz EC, Thompson LW, Gallagher-Thompson D. Understanding Caregiver Health Behaviors: Depressive Symptoms Mediate Caregiver Self-Efficacy And Health Behavior Patterns. American Journal of Alzheimer's Disease & Other Dementias 2011; 26(4):310-6.

Robinson-Smith G, Pizzi ER. Maximizing Stroke Recovery Using Patient Self-Care Self-Efficacy. Rehabilitation Nursing 2003; 28(2):48-51.

Şahin AZ, Ergüney S, Polat H. Determination of Factors Effecting the Care Taking Load of Care Takers for Individuals Diagnosed With Cancer. Journal of Atatürk University School of Nursing 2009; 12:1-9.

Tang Y, Chen S. Health Promotion Behaviors In Chinese Family Caregivers of Patients With Stroke. Health Promotion International 2002; 17(4):329-39.

Tuna M, Olgun N. The Role of Perceived Social Support on Stroke Patients' Caregivers Who Have the Burnout Syndrome. Hacettepe University Faculty of Health Sciences Nursing Journal 2010; 41-52.

Turkish Statistical Institute, Death Reason Statistics 2015.

Ülgen H, Öztürk C, Armstrong M. Effect of Self-Efficacy on Turkish Children's Perceptions of the Advantages/Disadvantages of Smoking. Asian Pacific Journal of Cancer Prevention 2012; 13:795-8.

World Health Organization, Global Status Report on Noncommunicable Diseases. 2014 ISBN 978 92 4 156485 4

World Health Organization, Neurological Disorders: Public Health Challenges. 2006 ISBN 978 92 4 156336 9

World Health Organization, World Health Statistics. 2008 ISBN 978 92 4 0682740

Yıldırım F, İlhan Öİ. The Validity And Reliability of the General Self-Efficacy Scale-Turkish Form. Turkish Journal of Psychiatry 2010; 21(4):301-8.

Yüksel G, Karlıkaya G, Şıpka Y, Tireli H, Varlıbaş F. Caregiver Burden in Parkinson's Disease. Journal of Parkinson's Disease and Movement Disorders 2007; 10(1-2):26-34.

Zarit SH, Zarit JM. The Memory And Behavior Problems Checklist And the Burden İnterview. 1990, University Park, Pennsylvania State University Gerontology Center

Zaybak A, Güneş Ü, İsmailoğlu GE, Ülker E. The Determination of Burden Care of Caregivers for Bedridden Patients. Journal of Anatolia Nursing and Health Sciences 2012; 15(1): 48-54.