

Relationship Between Caregiver Depression and Caregiving Burden and Cognitive Factors

Fatih YIĞMAN¹, Muhammed Hakan AKSU², Kadir ÖZDEL¹

¹Dışkapı Yıldırım Beyazıt Training and Research Hospital, Ankara, Turkey

²Yıldırım Beyazıt University, Yenimahalle Training and Research Hospital, Ankara, Turkey

Abstract

Relationship between caregiver depression and caregiving burden and cognitive factors Background: This study was designed to investigate the relationship between caregiving burden and negative cognitions. In addition, it was aimed to examine whether there is a difference in negative cognitions between caregiver depression and depression due to other reasons. Method: The study included 52 caregivers and 67 patients diagnosed with major depression due to other causes. Test batteries consist of Beck Depression Inventory and Beck Anxiety Inventory to assess symptom severity, Automatic Thoughts Questionnaire to detect automatic thoughts, Short form of Dysfunctional Attitudes Scale to determine intermediate beliefs, Social Comparison Scale to determine fundamental beliefs and Zarit Burden Interview to determine caregiver burden. Results: There was a significant relationship between Zarit Burden and Beck Depression Scale ($r: 0.814$) and a weakly significant relationship with Beck Anxiety Scale ($r: 0.397$). Negative cognitive factors were not found to be higher in the total score of any scale and subscale in the caregiver group. Conclusions: If we analyze the general findings of our study, we didn't find any striking cognitive structure that differentiates the caregiver depression from the other depression group. Related to this, when explaining depressive symptomatology, it can be assumed that the degree of activation, rather than the presence or absence of negative cognitions, is decisive for the clinic.

Keywords: Depression, caregiver burnout, cognitive therapy, cognition, symptoms

Öz

Bakımveren Depresyonu ile Bakım Yüğü ve Bilişsel Faktörler Arasındaki İlişki

Amaç: Bu çalışma bakım verme yükü ile olumsuz bilişler arasındaki ilişkiyi araştırmak için tasarlanmıştır. Ayrıca, bakımveren depresyonu ile diğer depresyon grubu arasında olumsuz bilişlerde fark olup olmadığının incelenmesi amaçlanmıştır. Yöntem: Çalışmaya 52 bakımveren ve diğer nedenlere bağlı majör depresyon tanısı alan 67 hasta alındı. Test bataryaları, semptom şiddetini değerlendirmek için Beck Depresyon Envanteri ve Beck Anksiyete Envanteri, otomatik düşünceleri tespit etmek için Otomatik Düşünceler Ölçeği, ara inançları belirlemek için Fonksiyonel Olmayan Tutumlar Ölçeği kısa formu, temel inançları belirlemek için Sosyal Karşılaştırma Ölçeği ve bakıcı yükünü belirlemek için Zarit Bakım Yüğü Ölçeğinden oluşmaktadır. Bulgular: Zarit Bakım Yüğü ve Beck Depresyon Ölçeği ($r: 0.814$) ile Beck Anksiyete Ölçeği ($r: 0.397$) arasında anlamlı bir ilişki vardı. Olumsuz bilişsel faktörler, bakıcı grubunda herhangi bir ölçek ve alt ölçeğin toplam puanında daha yüksek bulunmamıştır. Sonuç: Çalışmamızın genel bulgularını analiz edersek, bakıcı depresyonunu diğer depresyon grubundan ayıran çarpıcı bir bilişsel yapı bulamadık. Bununla ilgili olarak, depresif semptomatolojiyi açıklarken, olumsuz bilişlerin varlığı veya yokluğu yerine, aktivasyon derecesinin klinik için belirleyici olduğu varsayılabilir.

Anahtar Kelimeler: Depresyon, bakımveren tükenmişliği, bilişsel terapi, biliş, belirtiler

Correspondence / Yazışma:

Fatih YIĞMAN

Dışkapı Yıldırım Beyazıt Training and Research Hospital, Ankara, Turkey

Tel: +90 312 596 20 00

E-mail: dr.yigman@gmail.com

Received / Geliş: August 05, 2019

Accepted / Kabul: November 10, 2019

©2019 JCBPR, Available online at <http://www.jcbpr.org/>

INTRODUCTION

A person who takes care of individuals having difficulties in performing daily life activities and needs, due to physical or mental discomfort, is called a “caregiver” (Zarit, 2004). Nowadays, the extension of life expectancy in many diseases has led to an increase of individuals in need of care. As a result, the concept of care and caregiving has gained importance (Atagün, Balaban, Atagün, Elagöz, & Özpolat, 2011). Although it shows variety with sociocultural processes, caregiving is usually managed by one of the family members or the partner of the patient (Zarit, Reever, & Bach-Peterson, 1980). In general, it can be assumed that women play a major role in the care processes in our society. (Atagün et al., 2011; Dokmen, 2017).

The concept of caregiving covers many subjects such as meeting daily needs, managing money, providing health care, assisting the treatment process and taking care of shopping (Ozlu, Yildiz, & Aker, 2009; Zarit, 2004). These care services and activities strengthen the relationship with the patient which has positive and negative consequences (Atagün et al., 2011; Dokmen, 2017). Regarding the caregiving process, physical, emotional, social and economic problems are all expressed as caregiver burden (Kasuya, Polgar-Bailey, & MPH Robbyn Takeuchi, 2000). There is an increased risk of depression in caregivers as a result of failed improvement of the disease, insufficient social support, stress, anxiety, guilt, helplessness, panic, and loneliness (Arslantaş & Adana, 2011; Duman & Bademli, 2013).

According to other studies, caregivers have been reported more likely to experience depression, anxiety, physical health problems, social isolation and burnout (Dokmen, 2017). In this sense, it was reported that the physical and psychological health of caregivers also deteriorated (Deeken, Taylor, Mangan, Yabroff, & Ingham, 2003). One study reported an association between increased caregiver burden and the incidence of infectious diseases (Deeken et al., 2003; Schulz & Beach, 1999). In another study, 84.85% of caregivers stated difficulties in communication with the patient, 78.79% felt tired, 60.60% did not have time to spend for themselves and 56.9% stated economic difficulties (Altun, 1998). Schulz and Beach reported in their study that caregivers with an experience period of four years had a 63% higher mortality rate compared to non-caregivers (Schulz & Beach, 1999).

Depressive disorder is an important public health problem. In the emotional area it is manifested by symptoms such as lows, reluctance, inability to enjoy; in the dimension of thought by guilt, pessimism and worthlessness; in the psychomotor area by fatigue and slowdown in behavior; followed by sleep and appetite disorders and sexual reluctance in psychophysiological functions. Depression, which starts at a young age and has a tendency to recur and persist, is considered as a serious economic load in terms of cost due to difficulties in providing an adequate treatment process. Major depressive disorder (MDD) is very common in the general population and is a major public health problem worldwide. According to Ankara-Gölbaşı data, in the “Mental Disorders in Primary Care” study determined that depression was the most common mental disorder (11.6%) among patients applying to primary health care units (Erol, Kiliç, Ulusoy, Keçeci, & Şimşek, 1998). In the USA, the prevalence of lifetime MDD has been reported to be approximately 15% (Kessler et al., 2005).

It has been accepted as a common endway for the etiology of depression, due to bio-psycho-social factors like in other mental disorders (Reppermund, Ising, Lucae, & Zihl, 2009). Among the psychological models, the most researched one is the cognitive behavioral model.

The cognitive theory examines cognitive structures under two main topics; automatic thoughts and schemes. Schemes can be examined in two parts as intermediate beliefs (conditional rules) and core beliefs. These schemes determine the emotional and behavioral patterns, called personality (Türkçapar, 2009). In this sense, it is possible to talk about a three-layered structure according to the cognitive model.

In literature, many studies are showing the relationship between automatic thoughts and schemes of symptoms of depression. However, there is limited information on the specific points of these cognitive characteristics related to caregiver depression. In societies wherein, caregiving processes are quite common, as in ours, it will be useful to understand and interpret these cognitive difference. Therefore, we aimed to contribute to the literature in this specific field with our research.

In this study, we had two hypotheses. Firstly, there is a relationship between caregiving burden and depressive complaints and negative cognitions. Thereafter, both the severity of depression as the severity of negative cognitions

increase when caregiving burden increases. Secondly, there is a difference in negative cognitions between caregiver depression and depression due to other causes. Caregiver depression differs from depression due to other reasons in some cognitions at spiritual level.

METHOD

Sampling and Data Collection

The study included 119 patients aged between 18–65 years, who were admitted to the psychiatry outpatient clinics of The University of Health Sciences Dışkapı Yıldırım Beyazıt Training and Research Hospital between April 2019 and June 2019. The diagnoses of the patients were screened with a structured clinical interview scale (SCID-I) for DSM-IV Axis-I disorders and re-evaluated with Diagnostic and Statistical Manual of Mental Disorders-5 (DSM-5) for changing diagnostic criteria. After being informed patients were included in the study voluntarily. Forty-six out of 165 patients diagnosed with major depression were excluded from the study for different reasons (such as discontinuing to participate in the study, randomly marking scales). A total of 52 caregivers and 67 patients diagnosed with major depression due to other causes were included. Informed consent was obtained from the participants. This study was conducted by University of Health Sciences Ankara Dışkapı Yıldırım Beyazıt Training and Research Hospital Ethics Committee. It was carried out in accordance with the ethical standards established in the 2013 Helsinki Declaration.

Patients with psychotic disorder, bipolar disorder, dementia, organic mental disorder, mental retardation, and illiterate patients were excluded from the study. While the caregivers were considered, they were evaluated with the criterion of being the primary person who handled a relative's care process for at least 6 months.

The patient diagnosed with major depression was, after routine outpatient clinic application, subsequently directed to one of the authors for evaluation. At the first interview, SCID-I was applied to the patients. Afterward, sociodemographic data form was filled by the physician applying SCID-I and test batteries were given. Test batteries consist of Beck Depression Inventory and Beck Anxiety Inventory to assess symptom severity, Automatic Thoughts Questionnaire to detect automatic thoughts, Short form of Dysfunctional Attitudes Scale to determine

intermediate beliefs, Social Comparison Scale to determine core beliefs and Zarit Burden Interview to determine caregiver burden.

Data Collection Tools

Sociodemographic data form: It was developed by the research team to obtain demographic data for the purposes of the study.

Structured clinical interview scale for DSM IV Axis-I disorders (SCID-I): Developed by First and his colleagues in 1997 to detect axis 1 mental disorders according to DSM-IV. The Turkish conformation and validity-reliability study was conducted by Çorapçioğlu et al. (Çorapçioğlu, Aydemir, Yıldız, Esen, & Köroğlu, 1999).

Beck Depression Inventory (BDI): It is a self-assessment scale, consisting of 21 items, developed by Beck et al. in 1961 to assess emotional, somatic and cognitive symptoms. It was revised in 1984 by Beck and the Turkish validity and reliability study was conducted by Hisli (Hisli, 1989).

Beck Anxiety Inventory (BAI): The Beck Anxiety Scale was developed by Beck et al. in 1988 and includes 21 items. The Turkish validity and reliability study of the scale was accomplished by Ulusoy et al. (Ulusoy, 1993).

Automatic Thoughts Questionnaire (ATQ): It is a 5-point Likert-type self-report scale of 30 questions that assesses the frequency of negative automatic thoughts associated with depression. It was developed in 1980 by Hollon and Kendall. The translation into Turkish was made in 1987 by Yeniçeri. The scale adjustment to Turkey was carried out by Aydın and Aydın, Şahin and Şahin (Aydın & Aydın, 1990; N. H. Şahin & Şahin, 1992). The factor analysis of the scale showed a framework of 5 factors. These are; “negative self-concept (NSC)”, “confusion and escape fantasies (CEF)”, “personal maladjustment and desire for change (PMDC)”, “loneliness/isolation (LI)” and “giving up/helplessness (GH)”.

Short form of dysfunctional attitudes scale (DAS-R): The dysfunctional attitudes scale includes 40 items and was devised by Weissman and Beck in 1978 to evaluate non-functional hypothesis and beliefs. It is a Likert-type scale filled in by the individuals themselves. Later on the scale was revised by Batmaz and Özdel with a short form of 13 items (Batmaz & Özdel, 2016). The factor analysis

indicated two factors, which is “perfectionism (P)” (first 8 items) and “need for social approval/dependency (NSAP)” (last 5 items).

Social comparison scale (SCS): SCS is a self-assessment scale that interprets one’s evaluations of how he or she sees himself/herself when compared to others. It was developed in 1991 by Gilbert and Trend. The Turkish form was developed by Şahin et al. and included new items apart from the original scale (N. Şahin, Durak, & Şahin, 1993). It has also been used in various studies in order to identify core beliefs.

Zarit Burden Interview (ZBI): Developed by Zarit et al. in 1980 to assess the difficulties and stress experienced by caregivers for those in need of care (Zarit et al., 1980). It consists of 22 items, the higher the scale outcome, the higher the load. Between 22–46 points was evaluated as mild load, between 47–55 points as moderate load and between 56–110 points as severe load. The reliability and validity of the Turkish version of the scale was performed by Özlü et al. (Ozlu et al., 2009).

Statistical Procedures

All data were analyzed with the SPSS 15.0 for Windows Evaluation Version (statistical package for the social sciences) statistical package program. Sociodemographic data and psychiatric disorders of the patients, with nominal characteristics, were given in percentage. While numerical variables were represented with mean and standard deviation; categorical variables were represented by numbers and percentages. The homogeneity of the compared groups, in terms of variation, was evaluated with the Levene test. In the normality analyzes, the skewness and kurtosis indices calculated by dividing the skewness and kurtosis coefficients of Tabachnick and Fidell by their standard errors are close to 0 within ± 2 limits; the standard

deviation and the ratio of the mean, as a percentage of the relative coefficient of variation in the range of 20 to 25, can be considered as evidence for the presence of the normal distribution data (Tabachnick, Fidell, & Ullman, 2007). In parametric comparisons, two independent sample tests were used. Since parametric assumptions were met for the relationship between numerical variables, the Pearson correlation was used. A p value < 0.05 was considered statistically significant.

RESULTS

Sociodemographic Data

When the sociodemographic data of the patients were examined, there was no difference between the groups in terms of age and education year. However, in terms of working status and monthly income, there was a difference between the groups and this difference was due to the low rates of work in the caregiver depression group (Table-1). In this group, 14 persons (26.9%) was taking care of their mother, 12 (23.1%) of their father, 4 (7.7%) of their siblings, 13 (25.0%) of their children and 9 (17.3%) of their partner. The reason of caregiving was dementia in 14 cases (26.9%), psychiatric disease in other 14 cases (26.9%), old age and additional problems in 13 cases (25.0%) and other diseases in 11 cases (21.2%).

When the caregiver group was taken into consideration Zarit Burden, Beck Depression Scale and Beck Anxiety Scale were examined to evaluate the relationship between caregiving burden and symptom severity. The average Beck Depression Scale results were 25.4 (SS: 5.31) and Beck Anxiety Scale counted 21.2 (SS: 12.47). Furthermore, the average Zarit Burden scores were 54.92 (SS: 11.41). To evaluate the relationship between different scales, Pearson correlation was applied which revealed a highly significant

Table 1: Independent group t-test results to evaluate whether there is a difference between the groups in terms of demographic data

	Status	N	X	SS	F	p
Age	Caregiver	52	44.79	11.131	1.447	0.131
	Other	67	41.91	9.488		
Education year	Caregiver	52	10.15	4.504	4.747	0.111
	Other	67	11.43	4.035		
Work	Caregiver	52	1.5769	0.75006	2.428	0.021
	Other	67	1.8806	0.66338		
Monthly income	Caregiver	52	1.6923	0.87534	0.393	0.001
	Other	67	2.5000	0.96362		

correlation ($r: 0.814$) between Zarit Burden and Beck Depression Scale ($r: 0.814$) and a weakly significant correlation ($r: 0.397$) with Beck Anxiety Scale (Table-2).

Two independent samples t-tests were used to examine the mean scores and the differences between the caregiver group and other depression groups. The mean scores of BDI and BAI were higher in the other depression group but there was no significant difference between the groups. When ATQ was examined, there was a significant difference between the groups in the ATQ total score and “negative self-concept (NSC)” subscales. This difference was due to the higher scores of the other depression group. On the other hand, the mean scores were higher in the other depression group in the sub-scales of “confusion and escape fantasies (CEF)”, “personal maladjustment and desire for change (PMDC)”, “loneliness/isolation (LI)” and “giving up/helplessness (GH)”. However, there was no difference between the groups. When the DAS-R was examined, there was a significant difference between the groups in the subscale of perfectionism (P). There was no significant difference between the groups in terms of “need for social approval/dependency (NSAD)” and DAS-R total score. On the other hand, the mean scores in the caregiver group were higher in the final outcome of SCS where the high score indicated a positive self-schema; but at the end, there was no significant difference between the different groups (Table-3).

Finally, when the sub-items of the SCS were examined within the groups, the mean scores of the caregiver group were lower in substance 6 (alone-not alone), 7 (excluded-accepted) and 18 (submissive-right-seeking) and the difference between the groups was significant. (Table-4).

DISCUSSION

Depression is a syndrome that can be seen at any age starting from childhood, with chronic progression and recurrence. It causes significant problems in social and occupational functioning unless properly diagnosed and treated. Overall, the lifetime prevalence of major depression in women is 10–25%. In this study, we aimed to investigate the relationship between caregiver depression and care burden and whether there is a difference in cognitive factors between caregiver depression and depression due to other causes.

One of the most important determinants of caregivers, in terms of their physical and psychological health, is

Table 2: Examining the correlation between ZBI, BDI, BAI in caregivers

	ZBI	BDI	BAI
ZBI	-	$r: 0.814^{**}$ $p:0.000$	$r: 0.397^{**}$ $p:0.004$
BDI	$r: 0.814^{**}$ $p:0.000$	-	$r: 0.377^{**}$ $p:0.006$
BAI	$r: 0.397^{**}$ $p:0.004$	$r: 0.377^{**}$ $p:0.006$	-

** Correlation is significant at the 0.01 level (2-tailed).

Table 3: Examination of the mean scores of the scales according to the caregiver depression and other depression group

	Status	N	X	SS	F	p
BDI	Caregiver	52	25.3846	5.31426	0.030	0.605
	Other	67	25.8955	5.33466		
BAI	Caregiver	52	21.1923	12.46491	9.330	0.416
	Other	67	22.9254	10.06090		
PMDC	Caregiver	52	20.3077	6.67902	5.216	0.001
	Other	67	25.1493	9.14903		
CEF	Caregiver	52	16.4615	5.83586	0.867	0.533
	Other	67	17.1493	6.03589		
NSC	Caregiver	52	9.6923	2.83907	0.239	0.633
	Other	67	9.9403	2.76822		
LI	Caregiver	52	10.9231	3.10500	1.759	0.418
	Other	67	11.4328	3.59808		
GH	Caregiver	52	11.2692	3.52646	0.048	0.628
	Other	67	11.5970	3.73785		
ATQ	Caregiver	52	68.6538	17.40845	8.347	0.000
	Other	67	83.2687	24.05397		
P	Caregiver	52	17.9615	10.55511	0.101	0.019
	Other	67	22.4925	10.15542		
NSAD	Caregiver	52	12.9615	5.88438	0.341	0.521
	Other	67	13.7015	6.46673		
DAS-R	Caregiver	52	30.9231	14.85069	0.617	0.062
	Other	67	36.1940	15.35759		
SCS	Caregiver	52	71.5192	14.90689	0.028	0.064
	Other	67	66.4030	14.68978		

Table 4: Examination of the sub-items of SCS by groups

	Status	N	X	SS	F	p
SCS6	Caregiver	52	2.4038	1.24080	8.035	0.005
	Other	67	3.1642	1.656914		
SCS7	Caregiver	52	2.6154	1.254855	5.594	0.000
	Other	67	3.7164	1.61251		
SCS18	Caregiver	52	2.5000	0.77964	30.057	0.000
	Other	67	4.0896	1.554381		

depression. It is known that depression reduces caregiver's quality of life, causes deterioration in functionality and increases mortality (Stommel, Collins, & Given, 1994).

It was reported that female caregivers endured higher subjective burden and had more coping problems (Barusch & Spaid, 1989). Studies indicate that 50% of caregivers experience symptoms of depression (Cuijpers, 2005; Pitceathly, Maguire, Haddad, & Fletcher, 2005). Caregivers face many difficulties in the long term and the meantime, they may experience physical and mental problems (Morimoto, Schreiner, & Asano, 2003; Raina et al., 2005). In a study conducted by Uğuz et al., with the families of children with disabilities, BDI and BAI scores were found to be significantly higher compared to the control group (Uğuz, Toros, Inanç, & Çolakkadioğlu, 2004). Researchers have found that providing care to elderly family members affects the psychological and physical health of caregivers adversely (Chen, Sabir, Zimmerman, Sutor, & Pillemer, 2007; Soskolne, Halevy-Levin, & Ben-Yehuda, 2007). According to another meta-analysis, there is a straightforward connection between caregiver stressors (including disorders and care responsibilities of elderly people) and depression (Pinquart & Sörensen, 2003). In our study, there was a highly significant correlation between Zarit Burden and Beck Depression Scale and a weakly significant correlation with Beck Anxiety Scale.

According to a study investigating the care burden for the elderly, the duty of maintaining care is a process undertaken by daughters based on traditional values (Inci & Erdem, 2006). In a study about caregivers in the United States, 84% were reported to be women (Edwards, Zarit, Stephens, & Townsend, 2002). According to the literature, it is stated that persons responsible for providing care for chronic patients are mainly female members of the family and spouses (Van Wijngaarden, Schene, & Koeter, 2004; Yen & Lundeen, 2006).

In our country and the world as in many studies, the ratio of women in the caregiving process is higher and in many societies it is perceived as a women's "duty". In this sense, only female participants were involved in this study. In addition, women were also more likely to seek medical care compared to men with the same severity of physical illness and similar psychiatric symptoms (Phillips & Segal, 1969). In a study by Torti et al., it was reported that female caregivers experienced more social isolation and more depression (Torti Jr, Gwyther, Reed, Friedman, & Schulman, 2004).

Automatic thoughts include negative evaluations of the person himself/herself and the world; they are the surface of the three-layered cognitive structure. Studies have reported a connection between severity of the depression and ATQ scores (Savaşır & Şahin, 1997). In a study examining automatic thoughts and scheme domains, it has been reported that high scores in depression may be basically related to schemes. In addition, there was a high level of correlation between automatic thoughts and depression rates (Aydemir, Temiz, & Göka, 2002).

Studies have reported that DAS makes a distinction between control groups and patients with depression (Dobson & Shaw, 1986). Beck claimed that people with a high degree of non-functional attitudes, such as stressful life events, perfectionism and the need for approval, triggered these attitudes which paved the way for attacks of depression (Şenormancı, Konkan, Güçlü, Şenormancı, & Sungur, 2013).

The Social Comparison Scale includes self-assessments of individuals at a core belief level and is used as an alternative tool in assessing their core beliefs. Low social comparison points were associated with high depression scores in the studies (Erözkan, 2011). We did not find any significant difference between the groups in the SCS total score. In this sense, according to the results of our study, it can be said that the other depression group scored significantly higher in ATQ; whereas, in DAS and SCS, there was no significant difference between the groups. Differences in ATQ's negative self-concept (NSC) and DAS-R perfectionism (P) subscale were also because the other depression group gave themselves higher scores.

When the sub-items of the SCS between the groups were examined, it was determined that the mean scores of the caregiver group were lower in item 6 (alone-not alone), 7 (excluded-accepted) and 18 (submissive-right-seeker) as the difference between the groups was significant. Rather than the total score of the scale, it may also be more useful to evaluate the items that make a difference.

If we analyze the general findings of our study, we didn't find any striking cognitive structure that differentiates the caregiver depression from the other depression group. Related to this, when explaining depressive symptomatology, it can be assumed that the degree of activation, rather than the presence or absence of negative cognitions, is decisive for the clinic. It would be more enlightening to evaluate this information through the concept of scheme activation.

The most important difficulty in investigating psychological disorders is how the information processing operation is activated and deactivated. In a study published in 2014, Beck suggested that these questions could be answered by the activation and deactivation processes of cognitive schemes (Generic Cognitive Model). According to this model, Beck categorized mental disorders as “state” or “mode”. Thus, related to depression, we can talk about “depressive state” or “depressive mode”. Modes are a complex form of many schemes such as expectations, rules, and evaluations of individuals about themselves and the world (Beck & Haigh, 2014). With increasing bias in information processing, we can talk about a process between the normative variant and clinical symptomatology.

Somehow, the triggering event activates the scheme, then the activated scheme initiates information processing and the underlying beliefs provide the content. With the activation of emotional, motivational and behavioral systems, since the functions of these systems are consistent with the content of belief, an integrated response emerges and forms the basis for clinical symptomatology (Beck & Haigh, 2014). With the activation of a person’s dysfunctional scheme according to the cognitive formulation, attention focuses on the scheme, the process of information processing proceeds within the framework of the scheme and results in emotion. Secondary evaluations and strategies related to emotion are also influenced by the scheme (Özdel, 2015). So the activation degree of the scheme is a decisive factor in the severity of the emotional or mental problem.

Among the limitations of our study, it can be said that the scales are self-report scales and that caregivers provide care for different clinical conditions and different relatives. In addition, factors such as social support mechanisms and economic competencies that have an effective role in determining clinical symptomatology have not been directly evaluated, but have been addressed through care burden. In this sense, future studies with more participants are needed. Nevertheless, we think this study will contribute to the literature in our country where caregiving behavior is quite common.

REFERENCES

- Altun, İ. (1998). Hasta yakınlarının bakım verme rolünde zorlanma durumları, I. Ulusal Evde Bakım Kongresi Kitabı, 24-26.
- Arslantaş, H., & Adana, F. (2011). Şizofreninin bakım verenlere yükü. *Psikiyatride Güncel Yaklaşımlar-Current Approaches in Psychiatry*, 3(2), 251-277. <https://dergipark.org.tr/tr/download/article-file/115115>
- Atagün, M. İ., Balaban, Ö. D., Atagün, Z., Elagöz, M., & Özpolat, A. Y. (2011). Kronik hastalıklarda bakım veren yükü. *Psikiyatride Güncel Yaklaşımlar*, 3(3), 513-552. <https://dergipark.org.tr/tr/download/article-file/115111>
- Aydemir, Ç., Temiz, H., & Göka, E. (2002). Majör depresyon ve özkıyıda kognitif ve emosyonel faktörler. *Türk Psikiyatri Dergisi*, 13(1), 33-39.
- Aydin, G., & Aydin, O. (1990). Otomatik Düşünceler Ölçeğinin Geçerlik ve Güvenirligi. *Psikoloji Dergisi*, 7(24), 51-57. <https://toad.halileksi.net/sites/default/files/pdf/otomatik-dusunceler-olcegi-toad.pdf>
- Barusch, A. S., & Spaid, W. M. (1989). Gender differences in caregiving: why do wives report greater burden? *The Gerontologist*, 29(5), 667-676. <https://doi.org/10.1093/geront/29.5.667>
- Batmaz, S., & Ozdel, K. (2016). Psychometric Properties of the Revised and Abbreviated form of the Turkish Version of the Dysfunctional Attitude Scale. *Psychological Reports*, 118(1), 180-198. <https://doi.org/10.1177/0033294116628349>
- Beck, A. T., & Haigh, E. A. (2014). Advances in cognitive theory and therapy: the generic cognitive model. *Annual Review of Clinical Psychology*, 10(1), 1-24. <https://doi.org/10.1146/annurev-clinpsy-032813-153734>
- Chen, C. K., Sabir, M., Zimmerman, S., Suito, J., & Pillemer, K. (2007). The importance of family relationships with nursing facility staff for family caregiver burden and depression. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 62(5), P253-P260. <https://doi.org/10.1093/geronb/62.5.p253>
- Cuijpers, P. (2005). Depressive disorders in caregivers of dementia patients: a systematic review. *Aging & Mental Health*, 9(4), 325-330. <https://doi.org/10.1080/13607860500090078>
- Çorapçıoğlu, A., Aydemir, Ö., Yıldız, M., Esen, A., & Köroğlu, E. (1999). DSM-IV Eksen I Bozuklukları (SCID-I) için yapılandırılmış klinik görüşme, klinik versiyon. Ankara: Hekimler Yayın Birliği.
- Deeken, J. F., Taylor, K. L., Mangan, P., Yabroff, K. R., & Ingham, J. M. (2003). Care for the caregivers: a review of self-report instruments developed to measure the burden, needs, and quality of life of informal caregivers. *Journal of Pain and Symptom Management*, 26(4), 922-953. [https://doi.org/10.1016/s0885-3924\(03\)00327-0](https://doi.org/10.1016/s0885-3924(03)00327-0)
- Dobson, K. S., & Shaw, B. F. (1986). Cognitive assessment with major depressive disorders. *Cognitive Therapy and Research*, 10(1), 13-29. <https://doi.org/10.1007/bf01173379>
- Dokmen, Z. Y. (2017). Yakınlarına bakım verenlerin ruh sağlıkları ile sosyal destek algıları arasındaki ilişkiler. *Ankara Üniversitesi Sosyal Bilimler Dergisi*, 3(1).
- Duman, Z. Ç., & Bademli, K. (2013). Kronik psikiyatri hastalarının aileleri: sistematik bir inceleme. *Psikiyatride Güncel Yaklaşımlar*, 5(1), 78-94. <https://doi.org/10.5455/cap.20130506>
- Edwards, A. B., Zarit, S. H., Stephens, M. A. P., & Townsend, A. (2002). Employed family caregivers of cognitively impaired elderly: An examination of role strain and depressive symptoms. *Aging & Mental Health*, 6(1), 55-61. <https://doi.org/10.1080/13607860120101149>
- Erol, N., Kılıç, C., Ulusoy, M., Keçeci, M., & Şimşek, Z. (1998). Türkiye Ruh Sağlığı Profili Raporu. Birinci baskı, Ankara.

- Erözkan, A. (2011). Lise öğrencilerinin sosyal karşılaştırma ve depresyon düzeylerinin bazı değişkenlere göre incelenmesi. *Sosyal ve Beşeri Bilimler Araştırma Dergisi*, 1(13).
- Hisli, N. (1989). Beck depresyon envanterinin üniversite öğrencileri için geçerliliği, güvenilirliği (A reliability and validity study of Beck Depression Inventory in a university student sample). *J Psycho.*, 7(23), 3-13. <https://toad.halileksi.net/sites/default/files/pdf/beck-depresyon-envanteri-toad.pdf>
- İnci, F., & Erdem, M. (2006). Bakım Verme Yükü Ölçeği'nin Türkçe'ye Uyarlanması geçerlilik ve Güvenilirliği. *Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi*, 11(4), 85-95. <https://dergipark.org.tr/en/download/article-file/29438>
- Kasuya, R. T., Polgar-Bailey, M. P., & MPH Robbyn Takeuchi, M. (2000). Caregiver burden and burnout a guide for primary care physicians. *Postgraduate Medicine*, 108(7), 119. <https://doi.org/10.3810/pgm.2000.12.1324>
- Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of dsm-iv disorders in the national comorbidity survey replication. *Archives of General Psychiatry*, 62(6), 593-602. <https://doi.org/10.1001/archpsyc.62.6.593>
- Morimoto, T., Schreiner, A. S., & Asano, H. (2003). Caregiver burden and health-related quality of life among Japanese stroke caregivers. *Age and Ageing*, 32(2), 218-223. <https://doi.org/10.1093/ageing/32.2.218>
- Ozlu, A., Yildiz, M., & Aker, T. (2009). Zarit Bakıcı Yük Ölçeğinin Şizofreni Hasta Yakınlarında Geçerlilik ve Güvenilirlik Çalışması. *Archives of Neuropsychiatry/Noropsikiatri Arsivi*, 46(Suppl), 38-42. <https://toad.halileksi.net/sites/default/files/pdf/zarit-bakici-yuk-olcegi-toad.pdf>
- Özdel, K. (2015). Düünden Bugüne Bilişsel Davranışçı Terapiler: Teori ve Uygulama. *Türkiye Klinikleri J Psychiatry-Special Topics*, 8(2), 10-20.
- Phillips, D. L., & Segal, B. E. (1969). Sexual status and psychiatric symptoms. *American Sociological Review* 34(1), 58-72. <https://doi.org/10.2307/2092787>
- Pinquart, M., & Sörensen, S. (2003). Differences between caregivers and noncaregivers in psychological health and physical health: a meta-analysis. *Psychology and Aging*, 18(2), 250-267. <https://doi.org/10.1037/0882-7974.18.2.250>
- Pitceathly, C., Maguire, P., Haddad, P., & Fletcher, I. (2005). Prevalence of and markers for affective disorders among cancer patients' caregivers. *Journal of Psychosocial Oncology*, 22(3), 45-68. https://doi.org/10.1300/j077v22n03_03
- Raina, P., O'Donnell, M., Rosenbaum, P., Brehaut, J., Walter, S. D., Russell, D., . . . Wood, E. (2005). The health and well-being of caregivers of children with cerebral palsy. *Pediatrics*, 115(6), e626-e636. <https://doi.org/10.1542/peds.2004-1689>
- Reppermund, S., Ising, M., Lucae, S., & Zihl, J. (2009). Cognitive impairment in unipolar depression is persistent and non-specific: further evidence for the final common pathway disorder hypothesis. *Psychological Medicine*, 39(4), 603-614. <https://doi.org/10.1017/s003329170800411x>
- Savaşır, I., & Şahin, N. H. (1997). Bilişsel-davranışçı terapilerde değerlendirme: Sık kullanılan ölçekler: Türk Psikologlar Derneği.
- Schulz, R., & Beach, S. R. (1999). Caregiving as a risk factor for mortality: the Caregiver Health Effects Study. *JAMA*, 282(23), 2215-2219. <https://doi.org/10.1001/jama.282.23.2215>
- Soskolne, V., Halevy-Levin, S., & Ben-Yehuda, A. (2007). The context of caregiving, kinship tie and health: A comparative study of caregivers and non-caregivers. *Women & Health*, 45(2), 75-94. https://doi.org/10.1300/j013v45n02_05
- Stommel, M., Collins, C. E., & Given, B. A. (1994). The costs of family contributions to the care of persons with dementia. *The Gerontologist*, 34(2), 199-205. <https://doi.org/10.1093/geront/34.2.199>
- Şahin, N., Durak, A., & Şahin, N. (1993). Sosyal karşılaştırma ölçeği: Bilişsel-davranışçı terapilerde değerlendirme. İçinde: Ankara, Türk Psikologlar Derneği Yayınları.
- Şahin, N. H., & Şahin, N. (1992). Reliability and validity of the Turkish version of the Automatic Thoughts Questionnaire. *Journal of Clinical Psychology*, 48(3), 334-340. [https://doi.org/10.1002/1097-4679\(199205\)48:3<334::aid-jclp2270480311>3.0.co;2-p](https://doi.org/10.1002/1097-4679(199205)48:3<334::aid-jclp2270480311>3.0.co;2-p)
- Şenormancı, Ö., Konkan, R., Güçlü, O., Şenormancı, G., & Sungur, M. Z. (2013). Ruminatif yanıt biçimi ve fonksiyonel olmayan tutumların majör depresyonla ilişkisi. *Düşünen Adam: The Journal of Psychiatry and Neurological Sciences*, 26(2), 239-247. <https://doi.org/10.5350/dajpn2013260302>
- Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2007). Using multivariate statistics (Vol. 5): Pearson Boston, MA.
- Torti Jr, F. M., Gwyther, L. P., Reed, S. D., Friedman, J. Y., & Schulman, K. A. (2004). A multinational review of recent trends and reports in dementia caregiver burden. *Alzheimer Disease & Associated Disorders*, 18(2), 99-109. <https://doi.org/10.1097/01.wad.0000126902.37908.b2>
- Türkçapar, H. (2009). Bilişsel terapi: Temel ilkeler ve uygulama: HYB Yayıncılık, 2002 (Medico Graphics Ofset).
- Uğuz, Ş., Toros, F., İnanç, B. Y., & Çolakkadıoğlu, O. (2004). Zihinsel ve/veya bedensel engelli çocukların annelerinin anksiyete, depresyon ve stres düzeylerinin belirlenmesi. *Klinik Psikiyatri*, 7(1), 42-47. https://www.journalagent.com/kpd/pdfs/KPD_7_1_42_47.pdf
- Ulusoy, M. (1993). Beck Anksiyete Envanteri-geçerlik ve güvenilirlik çalışması (Yayınlanmamış uzmanlık tezi). Bakırköy Ruh ve Sinir Hastalıkları Hastanesi, İstanbul.
- Van Wijngaarden, B., Schene, A. H., & Koeter, M. W. (2004). Family caregiving in depression: impact on caregivers' daily life, distress, and help seeking. *Journal of Affective Disorders*, 81(3), 211-222. [https://doi.org/10.1016/s0165-0327\(03\)00168-x](https://doi.org/10.1016/s0165-0327(03)00168-x)
- Yen, W., & Lundeen, S. (2006). The association between meaning of caregiving, perceived social support and level of depression of Taiwanese caregivers of mentally ill patients. *The International Journal of Psychiatric Nursing Research*, 12(1), 1378-1392.
- Zarit, S. H. (2004). Family care and burden at the end of life. *CMAJ*, 170(12), 1811-1812. <https://doi.org/10.1503/cmaj.1040196>
- Zarit, S. H., Reever, K. E., & Bach-Peterson, J. (1980). Relatives of the impaired elderly: correlates of feelings of burden. *The Gerontologist*, 20(6), 649-655. <https://doi.org/10.1093/geront/20.6.649>