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Caregiving burden of family caregivers of substance-addicted people in Turkey

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Abstract

Purpose: The purpose of this exploratory study was to examine the caregiving burden (CB) and the determinants of burden among family members of substance-addicted people.

Design and Methods: The sample of this cross-sectional research was 128 informal family caregivers of substance-addicted people. We collected data by using the Zarit Burden Interview (ZBI) assessing subjective burden.

Findings: Mean ZBI score was 52.2. The regression analysis showed that ZBI mean score was higher in female caregivers and caregivers with lower education, poor economic status, and longer caregiving duration. There was an inverse relationship between the addict's age and the CB.

Practice Implications: The predictors of CB may assist in setting caregivers at greater risk of CB as targets for the intervention.

KEYWORDS

caregiving burden, family caregivers, informal care, substance addiction

1 | INTRODUCTION

Addiction is a chronic condition involving cerebral motivation, memory, reward, and related circuits. The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association, 2013) contains 12 criteria or symptoms for substance use disorders, classified under four categories: impaired control, social problems, risky use, and physical dependence. There are nine substance addictions in DSM-5, including alcohol, caffeine, cannabis, stimulants (e.g., amphetamines and cocaine), inhalants, tobacco, opioids, hallucinogens, and sedatives, hypnotics, and anxiolytics. These addictions are covered in separate sections, but they are not distinct as all drugs taken in excess activate the brain's reward cycle, and their cooccurrence is not rare (American Psychiatric Association, 2013).

Affecting the lives of millions of people, substance addiction has become a social crisis, going beyond the capacities of health services in Turkey and all over the world. According to the United Nations World Drug Report (2020), 4.8% of individuals between the ages of 15–64 in the world were substance addicts (210 million people) in 2018, and the percentage increased to 5.3% in 2019, corresponding to 269 million people.

In the study conducted by the Monitoring Center for Drugs and Drug Addiction in Turkey in 2018 involving 42,754 people, 3.1% of the participants stated that they had used substances at least once in their life (lifelong prevalence) (General Directorate of Security, Department of Combating Narcotic Crime, 2018).

Under the NARKOLOG project initiated by the Department of Combating Narcotic Crime of the Turkish National Police, 5198 of the 95,000 people subjected to legal action for drug offenses in the second half of 2018 were surveyed. Of them, 84.6% stated that they used drugs, 85.6% stated that they started taking drugs with cannabis, and 63% of them were addicted (General Directorate of Security, Department of Combating Narcotic Crime, 2019).

Substance addiction, a complex biopsychosocial phenomenon, is considered a family disease (Vederhus et al., 2019). The role of families in substance addiction is extensive and complex; the support they provide to the addict is multifaceted, including direct care,

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financial assistance, and symptom management. In addition, family members assume a role in starting the treatment program of the addict and continuing the treatment without interruption. The family members also have to manage the consequences of addictive behaviors (Mannelli, 2013).

Substance addiction puts significant pressure on family members and leads to negative consequences such as anxiety (Cleary et al., 2008; Vadher et al., 2020), depression (Biegel et al., 2010; Vadher et al., 2020), and caregiver burden (CB) (Biegel et al., 2010; Cicek et al., 2015; Marcon et al., 2012; Mattoo et al., 2013; Nebhinani et al., 2013; Ozer, 2020; Sharma et al., 2019; Shekhawat et al., 2017). Family caregivers of addict experience fear, despair, embarrassment, low self-confidence, self-guilt, self-blame (Ozer, 2020), marital problems (Biegel et al., 2010; Shekhawat et al., 2017), and health threats (Cicek et al., 2015). Family members are also at risk of developing codependence, which tends to self-sacrifice through restrictions on themselves such as suppressing their feelings, prioritizing others' needs, minimizing personal demands, and exaggerating care-related behaviors to control or fix addicted relatives' problems. Codependence negatively affects family systems and imposes a significant burden on the well-being of family members, resulting in reactivity, self-neglect, and poor health (Bortolon et al., 2016). Codependent caregivers may be less efficient in maintaining the caregiving role in a healthy way (Vederhus et al., 2019).

The concept of caregiving burden (CB) is widely used in the field of health research but its definitions may somewhat differ. For instance, Zarit et al. (1986, p. 261) described burden as "the extent to which caregivers perceived their emotional, physical health, social life, and financial status as a result of caring for their relative." Zarit et al. (1986) considered CB to result from a particular, subjective, and explanatory procedure. According to the APA Dictionary of Psychology, CB is "the stress and other psychological symptoms experienced by family members and other nonprofessional caregivers in response to looking after individuals with mental or physical disabilities, disorders, or diseases" ("APA Dictionary of Psychology", 2020). In the Liu et al. (2020, p.438) study, burden is defined as "the level of multifaceted strain perceived by the caregiver from caring for a family member and/or loved one over time."

CB was conceptualized into two distinct components in earlier severe mental illness studies, as objective burden (OB) and subjective burden (SB) (Schene, 1990). OB has two components: the direct influence of patient's symptoms/functioning and the influence of burden resulting from the patient's symptoms/functioning on the household routine, family relations, social relations, leisure time/career, finances, physical health, and children/siblings. SB develops as a result of OB and is mainly associated with mental health problems (e.g., caregiver depression, anxiety) and subjective distress (Schene, 1990). Contributions from subsequent research led to a more in-depth understanding of the construct of CB by discovering significant determinants and factors likely contributing or mediating caregivers' perception of CB. According to studies conducted on caregivers of mental health disorders and dementia patients, CB was associated with a number of variables including depression, older age, receiving no help with caregiving, recent patient crisis, contact days, and having other family members in need of care (Souza et al., 2017) as well as the decline in patients' functioning, their behavioral and neuropsychiatric symptoms, and caregivers' gender, age, and health status (van den Kieboom et al., 2020).

The number of studies on family members of substance-addicted people (SAP) is quite limited. Previous studies note that the family caregivers experience varying degrees of burden (Marcon et al., 2012; Mattoo et al., 2013; Nebhinani et al., 2013; Sharma et al., 2019; Shekhawat et al., 2017). The wives of heroin-dependent husbands perceive higher overall burden than wives of alcohol-dependent husbands (Shekhawat et al., 2017). Depression, distress, and burden are different in caregivers of active versus abstinent addicts (Soares et al., 2016). Both OB (Sharma et al., 2019) and SB are higher in female caregivers (Sharma et al., 2019; Vadher et al., 2020). Being single, unemployed (Nebhinani et al., 2013), and having low income (Sharma et al., 2019, Vadher et al., 2020) are predictors of OB. Greater SB is associated with poor quality of life (Vadher et al., 2020) and higher level of caregiver depression (Biegel et al., 2010; Vadher et al., 2020) and anxiety (Cleary et al., 2008; Vadher et al., 2020). Family members with health problems resulting from caregiving may not be able to provide sufficient care and support for the addict. Unmet needs of caregivers may lead to interruption of the addict's treatment and negatively affect treatment outcomes (Biegel et al., 2010).

In the Turkish social structure, the most crucial source of support for individuals is their families. Despite this, only two studies (Cicek et al., 2015; Ozer, 2020) in families of SAP could be found. ZBI was used for CB assessment in both studies. The study by Cicek et al. has shown that family members of heroin addicts had severe CB and poorer quality of life when compared with healthy controls. Ozer (2020) found that family members of SAP perceived a significant burden and that CB was affected by gender, marital status, income level, working status of the caregiver(s), the type of addictive substance used, and the duration of providing care.

Although these two are respected studies as pioneering studies in Turkey, some problematic points stand out in the interpretation of the results. For example, in Cicek et al. (2015) study, unlike previous studies, 50% of caregivers were male, which was unusual for a country like Turkey, where the responsibility of family care is on the shoulders of women. In Ozer's study (2020), patients were not diagnosed as substance addicts according to DSM-IV or DSM-V by the physician. For this reason, the term substance user was used instead of substance addict in the study. Thus, there is a clear need for more studies to determine the CB and the factors affecting CB in family caregivers of SAP in Turkey.

Considering the dramatically increasing number of drug addicts in Turkey, assessing the CB will guide us in developing strategies to support family members. This exploratory study aimed to assess the CB and identify some CB predictors of family members of SAP.

In line with the study aims, we addressed the following research questions:

(1) What are the burden scores of family caregivers of SAP?
(2) What factors affect the burden of family caregivers of SAP?

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2 | METHODS

2.1 | Research model

The research was planned and carried out descriptively and cross-sectionally.

2.2 | Sample

The study sample consisted of 128 primary family caregivers (unpaid persons who take the main responsibility of care) of SAP diagnosed according to DSM-V and who were followed up in a hospital located in Istanbul between September 2018 and January 2019. The inclusion criteria were being 18 years of age and over, not having any chronic psychiatric disease (organic psychosis, schizophrenia, mental retardation, etc.), not being responsible for the care of another patient, and agreeing to participate in the study.

Among the caregivers of addicts who came to the hospital for addiction treatment during the study period, those who met the inclusion criteria were explained the purpose of the study and asked whether they would like to participate. Those wishing to participate were given an appointment for a suitable day. Caregivers were reminded by phone one day before the appointment day. Only one family member for each addict was included in the study. No sampling method was used in the study, and all individuals who met the study's inclusion criteria were included in the study.

2.3 | Data collection tools and methods

The data were collected using the Information Sheet (IS) and the Zarit Burden Interview (ZBI). The IS was prepared by the researchers using the relevant literature. It includes questions related to sociodemographic characteristics and questions related to caregiving. The questions in the IS were answered based on the views of the caregivers, for example, if the caregiver said he/she had a health problem/s as a result of caregiving, this was not further confirmed. Therefore, caregivers' responses were evaluated in the context of SB.

The 22-item self-report ZBI measures SB in caregivers of fragile older age people (Zarit et al., 1980). The questions in the ZBI focus on problems arising related to caregiver's health, well-being, finances, and personal and social life. For items 1–21, the respondents indicated whether they agreed with each statement (0 = *never*; 1 = *rarely*, 2 = *sometimes*, 3 = *quite frequently*, and 4 = *nearly always*). For the last item, they rated the degree of how overwhelmed they felt as a caregiver (0 = *not at all*, 1 = *a little*, 2 = *moderately*, 3 = *quite a bit*, and 4 = *extremely*). The burden score obtained from the scale varies between 0 and 88, with higher scale scores indicating more significant burden or higher distress experienced (Zarit et al., 1980).

The ZBI has been extensively used across languages and cultures in caregivers of people with different clinical contexts, including schizophrenia, advanced cancer, dementia, and acquired brain injury (Gonçalves-Pereira et al., 2017; Harding et al., 2015; Rodríguez-González & Rodríguez-Míguez, 2020).

The ZBI has also been used in substance use disorders research to describe the CB (Cicek et al., 2015; Ozer, 2020; Vadher et al., 2020). A significant advantage of the popularity of the ZBI is that results obtained across studies can be easily compared and synthesized (Harding et al., 2015) with the necessary caution regarding cross-cultural and other validity issues.

The ZBI was validated for the Turkish caregivers of elderly (Inci & Erdem, 2008), reliability was also documented for relatives of drug users in Turkey, showing good internal consistency (Cronbach's $\alpha = 0.98$) (Ozer, 2020). In the present study, the Cronbach α value was 0.89.

The study was conducted according to the Helsinki Declaration (World Medical Association, 2020). Ethics committee approval was obtained from the Istanbul Sabahattin Zaim University (approval number: 2018-07). All participants were informed of the purpose of the study and were assured of confidentiality. Written informed consent was obtained from all subjects before the study.

Data collection tools were administered in a quiet and isolated room at the hospital. Tools were distributed to family caregivers at different appointment schedules, and they were asked to complete the tools by themselves. Caregivers filled out IS and ZBI separately from the addicts to avoid any bias that could arise from the presence of addicts and increase comfort. Each participant took about 16 min to fill out the data collection tools.

2.4 | Statistical analysis

The Shapiro–Wilk value was calculated to determine whether the mean score of ZBI was fit for normal distribution. The descriptive statistics of number, percentage, mean, and standard deviation were calculated. Bivariate analysis was conducted to investigate the associations between the predictor variables and the CB. Pearson correlation (r), Student's t test, or analysis of variance (ANOVA) analysis of variance were used as appropriate. The effect of independent variables on the CB was examined by linear regression analysis. Independent variables with $p < 0.05$ in bivariate analysis were included in a multivariate linear regression model. Multicollinearity and tolerance, the variance inflation factor (VIF), and the condition index were calculated for each independent variable.

All statistical tests were done on the SPSS version 22 (IBM SPSS Corp.). The limit of significance was taken as $p < 0.05$ for all analyzes.

3 | RESULTS

3.1 | Characteristics of caregivers

The characteristics of caregivers are given in Table 1. The sample was composed of 39 men and 89 women, with a mean age of 47.5 years.

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TABLE 1 Caregiver characteristics

Characteristics	*n* (%)
Gender (female)	89 (69.5)
Age (mean ± SD) (min-max)	47.51 ± 13.21 (20–79)
Marital status (married)	99 (77.3)
Education status	
Primary school	82 (64.1)
Employment (not employed)	103 (80.5)
Perceived economic status	
Good	42 (32.8)
Moderate	51 (39.8)
Poor	35 (27.3)
Degree of relationship to the patient	
Mother	81 (63.3)
Father	14 (10.9)
Brother	10 (7.8)
Spouse	23 (18.0)
Living in the same house with the patient (Yes)	111 (86.7)
Caregiving duration	
Less than 1 year	57 (44.5)
1–5 years	18 (14.1)
5–10 years	23 (18.0)
10 years and more	30 (23.4)
Do you have health problems caused by caregiving (Yes)	63 (49.2)
Have you received information/ counseling on substance addiction? (Yes)	41 (32)
Do you receive psychological support for substance addiction?	
Received in past	13 (10.2)
Currently receiving	14 (10.9)
Never received	101 (78.9)
Do you get support from your social environment (friends, relatives, etc.)?	
Always	19 (14.8)
Sometimes	31 (24.2)
Never	78 (60.9)

Most of them were married (77.3%), primary school graduates (64.1%), and unemployed (80.5%). About 40% of the participants defined their economic status as average and 27.3% as poor. Of the total, 63% of caregivers were the mothers of the addict, 86.7% were living with the addicted person, and 44.5% had been occupied with the care of the addict for duration less than 1 year. Almost half of the caregivers (49.2%) said that caregiving caused them health problems, 32% had previously received counseling on substance addiction, and 60.9% never received support from their social environment.

TABLE 2 Characteristics of the addicts

Characteristics	*n* (%)
Gender (male)	119 (93.0)
Age (mean ± SD) (min-max)	30.84 ± 14.13 (16–60)
Education status	
Primary school	33 (25.8)
Secondary school	52 (40.6)
High school	25 (19.5)
University	18 (14.1)
Substance addicted	
Heroin	74 (58.8)
Synthetic cannabinoid	20 (15.6)
Marijuana	8 (6.3)
Methamphetamine	11 (8.6)
Cocaine	9 (7.0)
Other (ecstasy, volatile substance)	4 (3.1)
Receiving addiction treatment	
Applied for treatment for the first time	71 (55.5)
Treated 1–2 times	34 (26.6)
Treated 3 or more times	23 (18.0)

3.2 | Characteristics of SAP

The characteristics of the SAP are given in Table 2. The average age of the addicts was 30.8 years, almost all were male, and 40.6% of them were secondary school graduates. More than half of the addicts (58.8%) used heroin, 26.6% had received addiction treatment 1–2 times, 18% three or more times.

3.3 | Caregiving burden and predictors of caregiving burden

Mean ZBI score was 52.22 (SD = 15.20, min-max = 21–84) (not tabulated). The bivariate analyzes showed that the ZBI score varied in a statistically significant degree according to some characteristics of the caregiver and the addict (Table 3). Women ($p < 0.001$), primary school graduates ($p < 0.001$), those who described their economic status as poor ($p < 0.05$), and those who lived in the same house with the addict ($p < 0.01$) had higher CB scores. CB was the lowest in family members providing care for less than 1 year and highest in

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those providing care for ≥10 years ($p < 0.001$). CB was higher in those who stated that they had health problems related to caregiving ($p < 0.05$) and those who did not receive information/counseling about substance addiction ($p < 0.05$). The CB score was higher in the family members of addicts hospitalized for treatment ($p < 0.01$). As the patient's age increased, CB slightly decreased ($p < 0.05$).

The independent variables determined to affect CB in the first analysis were examined with the regression analysis. Tolerance, VIF, and condition index values show that there is no multicollinearity problem in regression, as seen in Table 4. Explaining 40.2% of the total variance, the female gender ($p < 0.001$), lower educational status ($p < 0.001$), poor income of the caregiver ($p < 0.001$), how long he/she has been taking care of the addict ($p < 001$), and younger age of addict ($p < 0.001$) were found to affect the CB.

TABLE 3 Results of bivariate analysis

Characteristics	ZBI score (mean ± SD)	t/F/r value and p Values
Gender		
Female	55.27 ± 15.82	$t = 3.61$
Male	45.12 ± 11.39	$p = .000$
Education status		
Primary school	56.35 ± 13.25	$F = 10.32$
Secondary/high school	46.44 ± 19.61	$p = .000$
University	42.71 ± 10.39	
Perceived economic status		
Good	47.76 ± 16.40	$F = 4.11$
Moderate	52.11 ± 14.73	$p = .019$
Poor	57.57 ± 13.31	
Living in the same house with the patient		
Yes	58.83 ± 15.56	$t = 3.25$
No	41.35 ± 7.11	$p = .001$
Caregiving duration		
≤1 year	46.31 ± 16.52	$F = 8.56$
1–5 years	52.27 ± 13.20	$p = .000$
5–10 years	54.53 ± 12.21	
≥10 years	63.56 ± 9.68	
Do you have health problems caused by caregiving		
Yes	55.00 ± 15.38	$t = 2.07$
No	49.44 ± 15.84	$p = .040$
Have you received information/counseling on substance addiction?		
Yes	48.26 ± 14.84	$t = 2.00$
No	54.02 ± 15.26	$p = .047$
Receiving addiction treatment		
Applied for treatment for the first time	48.23 ± 14.89	$F = 6.12$
Treated 1–2 times	58.55 ± 13.99	$p = .003$
Treated 3 or more times	54.91 ± 15.24	
Addict age		$r = -0.208$
		$p = .018$

4 | DISCUSSION

This study aimed to evaluate CB and its determinants in family members of SAP. In Turkey, services for drug addicts are provided by AMATEM (Alcohol and Substance Addiction Treatment and Education Center for adults) for adults and by ÇEMATEM (Child and Adolescent Substance Addiction Treatment and Training Center) as well as by outpatient treatment centers and psychiatry outpatient clinics. The scope of the services provided is intended for addicts who wish to quit (Ministry of Health, 2021). There is, however, no planning or implementation that deals with the problems experienced by the family members. We hope that the results of this study will provide guidance in developing strategies to support family members of SAP.

In our study, the mean CB score was 52.22. To our knowledge, there are only three studies, where ZBI was used to measure CB in SAP. For example, Vadher et al. (2020) found a mean CB score of 53.17 in females, and 34.36 in male caregivers of patients with alcohol use disorder in India. In Turkey, mean CB scores in caregivers of SAP ranged from 41.92 (Cicek et al., 2015) to 67.58 SAP (Ozer, 2020). Previous studies also consistently showed that family caregivers of SAP experience varying degrees of CB from moderate to severe (Marcon et al., 2012; Mattoo et al., 2013; Nebhinani et al., 2013; Sharma et al., 2019). However, comparisons are difficult due to methodological differences between these studies.

We determined that caregivers' gender, educational status, income status, the duration of being a caregiver, and the age of the addict were predictive for CB. In previous studies conducted with the relatives of the addicts, different variables such as income level, working status, place of residence (urban/rural), gender, marital status and type of addictive substance used, and the duration of providing care had an effect on CB (Marcon et al., 2012; Mattoo et al., 2013; Nebhinani et al., 2013; Ozer, 2020; Sharma et al., 2019).

In our study, being a woman was an important predictor of CB, consistent with the results of previous studies both in (Ozer, 2020) and outside our country (Kaur et al., 2018; Soares et al., 2016; Vadher et al., 2020).

The more burden perceived by women may be related to the different perceptions of stressors and their coping mechanisms and unmet needs of social support. There are also sociocultural expectations that the woman should assume the role of care. Female

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TABLE 4 Results of multivariate analysis

	ZBI				Multicollinearity indices		
	B	*β*	*t*	*p*	Tolerance	VIF	Condition index
Characteristics of the caregivers							
Gender (female)	10.032	0.305	4.233	**0.000****	0.909	1.100	1,000
Education (primary school graduates)	−4,367	−0.219	2.804	**0.000****	0.772	1.296	5.072
Perceived economic status (poor)	5.391	0.275	3.828	**0.000****	0.911	1.098	5.106
Caregiving duration (≥10 years)	5.018	0.409	5.006	**0.000****	0.707	1.414	6.434
Characteristics of the addicts							
Age	−0.300	−0.295	3.301	**0.001***	0.590	1.695	8.493

Note: $R = 0.652$; $R^2 = 0.402$; $F = 18.048$.

Abbreviation: ZBI, Zarit Burden Interview.

*$p < .001$; **$p < .0.01$

caregivers have to deal with the SAP on the one hand, and on the other hand, they have to maintain many roles such as being a spouse, mother, child, employee, and many others. Women perceive more CB as the gap between their responsibilities and abilities widens (Ozer, 2020). Although almost all studies, except one (Hyder et al., 2016), found higher CB in women and interpreted this result from different perspectives, there is still a clear need for more studies examining the role of gender on CB.

This study showed the caregiver's educational status was one of the predictors of CB. Only Sharma et al. (2019) found that low education level poses a risk for CB, while none of the other studies (Marcon et al., 2012; Mattoo et al., 2013; Nebhinani et al., 2013; Ozer, 2020) demonstrated an effect of education on the CB. Caregivers with higher levels of education may be more confident in dealing with stressful situations, seek more support, and maybe more successful in accessing treatment-related services, which may explain the less CP perceived by them. Further studies examining the effect of education on self-efficacy, problem-solving behavior, health-seeking behavior, stress management in caregivers of SAP may help answer these questions.

Similar with previous studies (Mattoo et al., 2013; Ozer, 2020; Sharma et al., 2019), low income was predictor of CB. Inability to work regularly because of the responsibility of caring for the addict, the economic dependence of the substance addict on the family due to the inability to work regularly and the money spent on the addictive substance, as well as the treatment costs may be associated with the worsening of the economic conditions (Birkeland et al., 2017; Ozer, 2020; Sharma et al., 2019). In our study, 80.5% of the caregivers were not working in an income-generating job, we did not question whether the caregivers did not work/quitted job because they had to take care of the addict and whether the substances and treatment costs used by the addict affected their economic status. There is a need to investigate the root causes of the family's economic difficulties in further studies. This can help identify the areas that need to be intervened to alleviate the caregiving burden to reduce CB.

The finding that being caregiver for a longer time predicts burden is consistent with Ozer's study (2020). Long-term care of SAP means that family members often face problems such as interruption of treatment, relapse problems, stigma, exclusion of the family from society or withdrawal, social isolation, and disruption of family dynamics (Mancheri et al., 2013). For these reasons, the increased CB seems to be a natural consequence of taking on the role of caregiver for a long time, and hence, our study result is an expected one.

We found that age, among the addicts' variables, was a predictor of CB: as the addict's age increased, the CB decreased. To our knowledge, only two studies examined the relationship between the age of addict and CB (Ozer, 2020; Soares et al., 2016). Contrary to our study findings, both studies noted that there was no relationship between two variables. These diverse results indicate that further studies are needed to examine the relationship between an addict's age and CB burden.

The results of our study are not generalizable and causal associations cannot be inferred because this was a cross-sectional study conducted in a convenience sample with particular characteristics. The following limitations should be taken into account when interpreting the results of the present study.

First, family caregivers of SAP who never applied to the clinic/did not receive treatment could not be included in the study. Therefore, our sample may not represent the population of drug addicts in Turkey properly.

Second, the data did not cover some variables such as heroin dependence versus other substances, the presence of comorbid psychiatric problems in addicts, the presence of the other family members sharing the addicts' care, and the coping strategies of the caregivers that could be important to explain differences in CB. In

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addition, defining economic status/income was based on caregivers' perception rather than actual income. Financial strain related to caregiving can be due to multiple objective causes such as increased treatment and/or care expenditures and decreased household income.

Third and foremost, CB was assessed by using the ZBI in a population composed of family members of SAP where validation issues were still under study. The ZBI was not designed specifically to be used in the clinical context and the questions about outcomes of caregiving in the ISI were more about SB. In addition, a variety of instruments were used to measure CB in family caregivers of addicts in previous studies (Tyo & McCurry, 2020). However, as far as we know, none of these tools were developed specifically for caregivers of substance addicts but were adapted from measurement tools developed for different groups such as people with schizophrenia, Alzheimer's disease, and the elderly. Besides, none of these tools has been established as superior to the others. Therefore, although the present study contributes CB literature of substance addicts in Turkey, this should be taken into account when comparing CB findings from different studies.

Finally, the current study was also limited because it did not specifically assess the positive effects of caregiving (such as feeling useful or the increased closeness with the substance-addicted family member) that are not indexed in the ZBI.

Hence, the results of this study should be interpreted cautiously.

5 | CONCLUSIONS

Comparing the current results with previous studies has been difficult due to the difficulty in identifying other studies with a similar methodological design and using the same tool to measure burden. Despite the limitations listed above, factors closely related to CB were identified in this study, and the results may contribute to the development of strategies and interventions to reduce the burden on family caregivers of addicts.

5.1 | Implications for psychiatric nursing practice

As a member of a multidisciplinary team, psychiatric nurses have an important place in the field of mental health. They are expected to plan appropriate interventions by evaluating the problems not only of substance addicts but also their families with a holistic perspective. Nurses' support to caregivers should be tailored with consideration to various factors associated with the caregiver and addicts that are known to affect the caregiving experience.

Our study has shown that family caregivers experience high levels of CB. Significant predictors of subjective CB were female gender, lower educational status, inadequate income, longer caregiving duration, and younger age of addicts. In an era of limited resources for mental health care, determining the predictors of CB may help identify family members at greater risk as target groups for the intervention.

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CONFLICT OF INTERESTS

The authors declare that there are no conflict of interests.

DATA AVAILABILITY STATEMENT

Data available on request from the authors. The data that support the findings of this study are available from the corresponding author upon reasonable request. The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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