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Original Research Paper

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BURNOUT SYNDROME AND JOB SATISFACTION AMONG ASSISTANT DOCTORS WHO'S THAT WORKING A FACULTY OF MEDICINE OF A UNIVERSITY IN TURKEY

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ABSTRACT

Introduction: Burnout was first described by Freudenberg as a state of exhaustion resulting from failure, wear, loss of energy and power, or unfulfilled demands on human internal resources. The aim of this study is to determine the frequency of burnout syndrome among assistant doctors in a university medical faculty and to evaluate the relationship between this and its possible related factors and job satisfaction. **Material-Method:** This study is a cross-sectional. The study was designed as an online survey application. The working period in which the online survey is applied is December 15, 2020 - January 31, 2021. A total of 92 assistant physicians who volunteered participated in the study. A questionnaire form, the Burnout Scale Short Form (BS-SF), and the Minnesota Job Satisfaction Scale were used. Data entry and analysis were made in SPSS 25.0 statistics program. The student t-test, One-way ANOVA, and correlation analysis were used in statistic analyses. **Results:** In the study group, 22.8% (n: 21) were found to be "a very serious burnout problem" and 20.7% (n: 19) "in need of professional help as soon as possible". It was found the relations between those variables with the burnout syndrome: being older, being a woman, to think that it is not suitable for their specialization discipline, not being satisfied with their monthly income, not being able to devote time to hobbies, mobbing, psychological violence from patients, psychological support, and to think to leave the medical profession (for each one $p<0.05$). A moderate negative correlation was found between the BS-SF score and the Minnesota Job Satisfaction Scale score (r: -0.527; $p<0.001$). **Conclusion:** This study provides evidence that burnout syndrome is common among assistant doctors who make up the study group. It is recommended that psychological support services for assistant doctors be provided in an effective and sustainable manner.

KEYWORDS : Burnout, Assistant Doctor, Job Satisfaction

INTRODUCTION:

In recent years; although the prevention and treatment of some diseases are developing in the field of medicine due to the changing world economy, means of production, technology, and science, socio-economic and socio-cultural development, there are also some negative health consequences. One of these negative health consequences is burnout syndrome (Kocalevent et al., 2020).

Burnout was first described by *Freudenberg* as a state of exhaustion resulting from failure, wear, loss of energy and power, or unfulfilled demands on human internal resources. Later, according to the scale prepared by *Maslach* working on this subject, the three dimensions of burnout syndrome are emotional exhaustion, depersonalization, and low level of personal accomplishment (Dolgun, 2010).

Emotional exhaustion; manifests itself in forms such as stress, anger, impatience, depression, apathy, and anxiety. Desensitization; is the indifference of the physician to the feelings and thoughts of his patients and colleagues. It is more common in surgical assistant physicians. Low job satisfaction is when an individual sees his or her success as worthless. Burnout syndrome is the result of a long accumulation of work-related stress. Some of the more common reasons for burnout syndrome in assistant physicians are; be working hours are long and intense, fear of making mistakes, pressure, expectations about the person's profession and himself, and the difficulty of the physician both to learn and work. Family problems, illnesses, grief, and livelihood anxiety increase the possibility of burnout syndrome in the individual. In addition, in the previous six months, the probability of burnout syndrome in physicians who have been exposed to a stressful event increases eight times. Burnout syndrome can manifest itself through various physical ailments. Some of those; gastrointestinal disorders, hypertension, headache, insomnia, allergies, hair loss, motivation, and concentration impairment. In addition, suicidal ideation is more common in people with burnout syndrome (Gouveia et al., 2017; Low et al, 2019).

Individuals with burnout do not come to work due to illness, have sleep problems, frequently use painkillers, and think about quitting the job (Gunusen & Ustun, 2010). Due to this syndrome, assistants experience emotional breakdowns in their medical life and problems arise in their communication with the patient. In addition, they may not be able to achieve job satisfaction in their medical life and think about quitting the job and may endanger the health of themselves and the patient because they cannot focus on their job. Burnout also negatively affects the family life of assistant physicians. It may cause domestic unrest and domestic violence (Dimitriu et al., 2020).

Burnout syndrome is more common in occupational groups that are in constant contact with people. In the medical

profession, what is in question is human life and stress is inevitable (Isikhan, 2016). Considering the patient-doctor relationship today, we see that patients tend to expect more than modern medicine can offer in terms of treatment, and thus, their satisfaction decreases, affecting the degree of burnout in physicians (Abdulaziz et al., 2009).

Many studies have been conducted to observe changes in physicians' burnout and work-life balance satisfaction. In a study conducted by US physicians, it was reported that the incidence of at least one burnout symptom increased from 45.5% in 2011 to 54.4% in 2014. In the same study, satisfaction with the work-life balance among physicians also decreased from 2011 to 2014 (Shanafelt et al., 2015). In a study on the prevalence of burnout syndrome among assistant doctors, being in the first years of residency, being over the age of twenty-eight, being a woman, and being unmarried were reported as reasons for burnout syndrome to be seen more frequently. In addition, it has been observed that people with burnout syndrome use more alcohol and have less physical activity (Low et al., 2019). Surgery assistants are more likely to have burnout syndrome. It has been found that burnout syndrome is less common in psychiatry assistants (Dolgun, 2010). Psychiatrists receive various therapy training and work on mental illnesses. The specialty education with the lowest burnout syndrome rate is family medicine (Gouveia et al., 2017).

Physician burnout and depression have been recognized as serious international problems, and the secondary costs of poor mental health to physicians are large. Physicians should take an active role in both searchings for meaning and making connections with meaning. Understandably, burnout and frustration may have led some doctors to have a sense of cynicism that obscures the meaning of their lives. If physicians cannot find meaning on their own, they should seek help from colleagues, coaches, or therapists (Slavin, 2019). Robustness and burnout are two opposing concepts viewed from the same pool. Robustness is not only physically strong but actually the sum of being physically, emotionally, and cognitively strong (Bilgel et al., 2012). Unhappiness, fatigue, chronic stress, self-esteem, and problems caused by burnout syndrome also reduce job satisfaction. The intensity of work, the inconsistency of expectations about the profession with real life, and exhaustion that starts with other reasons result in the failure to fulfill the ideals, and this leads to the loss of self-esteem (Tan et al., 2012).

Turkey, according to a study in job satisfaction across the healthcare personnel and family physicians in the highest administrator, physician assistants and midwives are the lowest in (Low et al., 2019). While emotional burnout and depersonalization scores were higher in single individuals, personal achievement scores were higher in married individuals. There are also studies showing that job satisfaction increases and burnout decrease with age (Yaman & Ungan, 2002).

The aim of this study is to determine the frequency of burnout syndrome among assistant doctors in a university medical faculty and to evaluate the relationship between this and its possible related factors and job satisfaction.

Material-Method:

This study is a cross-sectional. This research subject is to investigate the presence of burnout syndrome and its relationship with job satisfaction. The study was designed as an online survey application. The working period in which the online survey is applied is December 15, 2020 - January 31, 2021.

It was aimed to include assistant physicians who were working in the medical faculty of *Izmir Katip Celebi University* in the study. Assistant physicians who volunteered participated in the study. The number of assistant physicians who received residency training in 2020-2021 at *Izmir Katip Celebi University Faculty of Medicine*, which was aimed to participate in the study, was 448. When the universe (N) is known, the sample size was calculated as 79. For this result, 95% confidence interval, 50% frequency, and 10% margin of error were accepted. A study group was formed with 92 (20.5% of the target population) assistant physicians who agreed to participate in the study.

In this study, a questionnaire form prepared in accordance with the purpose of the study and the literature (Yaman & Ungan, 2002; Dolgun, 2010; İsikhan, 2016; Tan et al., 2015) and consisting of three parts was used. Eight questions of the questionnaire were related to sociodemographic characteristics and the medical profession. The ninth question was prepared in the form of a 5-point Likert and includes 9 statements about burnout syndrome and the last two of them are reverse statements. The codes "9.1, 9.2, 9.3, 9.4., 9.5, 9.6, 9.7, 9.8, and 9.9" were used for these nine propositions. The propositions corresponding to the codes are as follows: "9.1: I came to the medical school willingly", "9.2: I think I am suitable for my profession", "9.3: I think I am suitable for the field of special education", "9.4: I recommend the medical profession", "9.5: I find my income sufficient", "9.6: The institution I work for provides me with the opportunities to improve myself", "9.7: I can spare enough time for my hobbies and loved ones", "9.8: I think I am exposed to mobbing" and "9.9: I am exposed to psychological violence by my patients".

The tenth question contains 7 questions that were asked to answer "Yes / No" and thought to be related to burnout syndrome.

For these seven questions, the codes "10.1, 10.2, 10.3, 10.4., 10.5, 10.6, and 10.7" were used. The propositions corresponding to the codes are as follows: "10.1: Do you smoke?", "10.2: Do you use alcohol?", "10.3: Do you have psychological support?", "10.4: Do you use antidepressants?", "10.5: Do you think to quit the practice?", "10.6: Have you worked as an assistant in another department before?", and "10.7: Do you want to get specialized training in another department?".

The second part of the questionnaire includes the Burnout Scale Short Form (BS-SF) consisting of 10 questions, and the *Minnesota Job Satisfaction Scale* consisting of 20 questions in the third part.

In the second part, the scale items were *"Never (1 point), Only Once (2 points), Rarely (3 points), Sometimes (4 points), Often (5 points), Mostly (6 points), and Always (7 points)"*, and a single total score was obtained from Burnout Scale-Short Form (BS-SF) and the burnout level of each person was evaluated. The arithmetic mean of the scores obtained from ten questions is interpreted as follows: The scores obtained from the scale of 2.4 and below are "the degree of burnout is very low"; The score between 2.5-3.4 is "distress signals"; Scores between 3.5-4.4 are found to be in "burnout state", a score between 4.5-5.4 is "a very serious burnout problem" and a score of 5.5 and above should be "professional help as soon as possible" (Capri, 2013). In our study, an increase in the burnout scale score, which takes a value between 1 and 7 points, indicates an increase in the severity of burnout.

Minnesota Job Satisfaction Scale was used to assess job satisfaction levels. Points between 1 and 5 were calculated from five-point Likert-type questions. For the 20 statements, scores between 20 and 100 were obtained. The higher the scores obtained from the scale, the higher the job satisfaction

level. The original version of the scale was developed by *Weiss* et al. (1967). The validity and reliability study was carried out in Turkey by *Baycan* (1985).

Permissions:

For this study, permission was obtained from the deanery of the medical faculty of the university where the study was conducted. Explanatory information about the study was provided to the participants in official letters and at the beginning of the online questionnaire. Ethical approval (Date: 23.07.2020 and Decision number: 862) was obtained from the Non-Interventional Clinical Research Ethics Committee of *İzmir Katip Celebi University* in order to carry out this study.

Ethics Committee approval was received by the principal investigator. An assistant doctor and medical students contributed to the study at the author level. There is no conflict between the authors.

This research was carried out within the scope of the *Izmir Katip Celebi University Faculty of Medicine "Human and Community Health"* course and also contributed to medical education.

No financial support has been received for this study.

Statistics:

Data entry and analysis were made in *SPSS 25.0* statistics program. The normal distribution of the data of numerical variables was evaluated by the *Shapiro Wilk* normality test and *Q-Q graphics*. It was observed that the normal distribution was observed. Frequency values; n (%) and means; presented as the arithmetic mean value (min-max).

Relationships between burnout syndrome level and independent variables were evaluated using the student t-test for paired groups and *One-way ANOVA* analysis for groups of three and above. Correlation between categorical variables and burnout syndrome score was evaluated using *Spearman* correlation analysis. Correlation between burnout syndrome score and job satisfaction score was evaluated with *Pearson* correlation analysis. A value of $p \leq 0.05$ was accepted for statistical significance.

Results:

Our study group consisted of 92 assistant physicians in total. The mean age of the study group was 29.10 ± 3.71 (20-45) years. There was no statistically significant difference in terms of the average age of women (29.38 ± 3.69 years) and men (28.73 ± 3.76 years) (t: 0.844; p: 0.401).

56.5% (n = 52) of the study group were women and 57.6% (n = 53) were single. 77.2% (n = 71) of the assistant physicians did not have children. Those who had a child constituted 15.2% (n = 14) of the study group. There was only one physician with three children. 69 (75.0%) Internal Sciences, 20 (21.7%) Surgical Sciences, and 3 (3.3%) Basic Sciences assistant doctors participated in the study group. The average of years spent in the residency practice was 2.30 ± 1.46 (0-7) years. The mean number of hospital shifts per month was 4.57 ± .3.75 (0-11).

The study group was asked the reason for choosing the physician profession, and 38.0% (n = 35) of the physicians "willingness to help people" 31.5% (n = 29) "being interested in science", 23.9% "to gain the social status and materiality" and 6.6% (n = 6) as other (family request, family compulsion, job security).

The Distribution Of The Study Group According To Some Characteristics Is Given In ***Table 1.***

Table 1. Distribution of the study group according to some characteristics

Features	N	%	Arithmetic mean ± Standard deviation	Min-Max
Age (year)			29.10 ± 3.71	20-45
Gender				
Woman	52	56.5		
Man	40	43.5		
Marital status				
Married	39	42.4		
No married	53	57.6		
Number of children				
0	71	77.2		
1	14	15.2		
3 and upper	7	7.6		
Department for assistance				
Surgical Sciences	20	21.7		
Internal Sciences and Basic Sciences	72	78.3		
Time Spent in Assistant Medicine (Year)			2.30 ± 1.46	0-7
Number of hospital shifts per month			4.57 ±.3.75	0-11
Reasons to Choose Medicine				
Willingness to help people	35	38.0		
Be interested in science	29	31.5		
High Social Status and financial income	22	23.9		
Other	6	6.6		

The Distribution Of The Answers Given To The Nine Possible Related Propositions Of Occupational Burnout Syndrome Is Given In ***Table 2.***

Table 2. Distribution of Responses to Nine Possibly Related Statements of Job-Related Burnout Syndrome

Code of the propositions	Propositions	I do not agree at all n (%)	I agree very little n (%)	Some times I agree n (%)	I mostly agree n (%)	I totally agree n (%)
9.1	I came to the medical school willingly	3 (3.3)	9 (9.8)	11 (12.0)	26 (28.3)	43 (46.7)
9.2	I think I am suitable for my profession	3 (3.3)	8 (8.7)	19 (20.7)	32 (34.8)	30 (32.6)
9.3	I think I am suitable for the field of special education	1 (1.1)	4 (4.3)	23 (25.0)	31 (33.7)	33 (35.9)
9.4	I recommend the medical profession	29 (31.5)	24 (26.1)	15 (16.3)	11 (12.0)	13 (14.1)
9.5	I find my income sufficient	56 (60.9)	19 (20.7)	14 (15.2)	3 (3.3)	0 (0.0)
9.6	The institution I work for provides me with the opportunities to improve myself	25 (27.2)	27 (29.3)	25 (27.2)	14 (15.2)	1 (1.1)

9.7	I can spare enough time for my hobbies and loved ones	21 (22.8)	23 (25.0)	16 (17.4)	21 (22.8)	11 (12.0)
9.8	I think I am exposed to mobbing	30 (32.6)	18 (19.6)	22 (23.9)	15 (16.3)	7 (7.6)
9.9	I am exposed to psychological violence by my patients	11 (12.0)	24 (26.1)	26 (28.3)	19 (20.7)	12 (13.0)

The distribution of the answers given by the study group to some questions that were asked to answer "Yes-No", which is thought to be related to the burnout syndrome associated with the profession, is presented in ***Table 3.***

Table 3. Distribution of the answers given by the study group to some questions that were asked to answer "Yes-No", which are thought to be related to the occupation-related burnout syndrome.

Code of the Question	Questions	Yes n (%)	No n (%)
10.1	Do you smoke?	19 (20.7)	73 (79.3)
10.2	Do you use alcohol?	46 (50.0)	46 (50.0)
10.3	Do you have psychological support?	16 (17.4)	76 (82.6)
10.4	Do you use antidepressants?	13 (14.1)	79 (85.9)
10.5	Do you think to quit the practice?	40 (43.5)	52 (56.5)
10.6	Have you worked as an assistant in another department before?	17 (18.5)	75 (81.5)
10.7	Do you want to get specialized training in another department?	30 (32.6)	62 (67.4)

The BS-SF mean score of the study group was 4.35 ± 1.27 (1.00-7.00).

According to the scores of the study group obtained from BS-SF; 3.3% (n: 3) "the degree of burnout is very low", 23.9% (n: 22) "there are signs of danger", 29.3% (n: 27) are in "burnout state", 22.8% (n: 21) were found to be "a very serious burnout problem" and 20.7% (n: 19) "in need of professional help as soon as possible".

The mean BS-SF score in female assistants (4.59 ± 1.33) was higher than that of men (4.03 ± 1.13) (t: 2.165; p: 0.033).

No difference was found between the single and married assistants in terms of BS-SF mean score (4.16 ± 1.19 and 4.60 ± 1.35, respectively) (t: 1.680; p: 0.096).

There was also no difference between surgical science assistants and internal and basic science assistants in terms of BS-SF mean scores (4.30 ± 1.11 and 4.36 ± 1.32, respectively) (t: 0.181; p: 0.857).

BS-SF mean score did not show a statistically significant difference (F: 0.118; p: 0.950) according to the reasons for choosing the medicine (Willingness to help people, Interest in Science, Status, and materiality, and others).

According to the correlation results between the BS-SF score and some variables; burnout increased with age. Statistically significant correlations were found between the burnout score and proposition 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, and 9.9 ($p < 0.05$ for each).

According to the correlation analysis; "10.3. Do you get psychological support? "," 10.5 Do you plan to quit the practice?", and "10.7 Do you want to receive specialized training in another department?" It was found that burnout score was higher in those who answered "Yes" to the questions ($p < 0.05$ for each). However; No correlation was found between the answers given to the questions coded 10.1, 10.2, 10.4, 10.6 and the BS-SF score ($p > 0.05$ for each).

According to student t-test results of the difference between the two averages, BS-SF mean scores were found to be higher in those who answered: "Yes" to the questions coded 10.3, 10.5, and 10.7 than those who answered "No" ($p < 0.05$ for each). However, BS-SF scores did not show a statistically significant difference according to the "Yes / No" answers given to the questions coded 10.1, 10.2, 10.4, 10.6 ($p > 0.05$ for each).

The *Minnesota Job Satisfaction Scale* mean score of the study group was 55.14 ± 13.88.

A moderate negative correlation was found between the BS-SF score and the Minnesota Job Satisfaction Scale score (r: -0.527; $p < 0.001$).

Correlations between BS-SF score and some variables and Minnesota Job Satisfaction Scale score are presented in ***Table : 4***

Table 4. Correlations between BS-SF score and some variables and Minnesota Job Satisfaction Scale score

Correlations with the BS-SF score	r	p
Age (year)	0.220	**0.035**
Number of children	0.074	0.485
Time Spent in Assistant Medicine (Year)	0.173	0.099
Number of hospital shifts per month	0.144	0.172
Propositions:		
9.1	-0.072	0.495
9.2	-0.126	0.230
9.3	-0.330	**<0.001**
9.4	-0.399	**<0.001**
9.5	-0.211	**<0.001**
9.6	-0.335	**<0.001**
9.7	-0.508	**<0.001**
9.8[t]	0.467	**<0.001**
9.9[t]	0.454	**<0.001**
Questionsa		
10.1	0.079	0.452
10.2	-0.020	0.846
10.3	0.304	**0.003**
10.4	0.175	0.095
10.5	0.433	**<0.001**
10.6	0.151	0.150
10.7	0.247	**0.017**
Minnesota Job Satisfaction Scale Score	-0.527	**<0.001**

*** Propositions:** "9.1: I came to the medical school willingly", "9.2: I think I am suitable for my profession", "9.3: I think I am suitable for the field of special education", "9.4: I recommend the medical profession", "9.5: I find my income sufficient", "9.6: The institution I work for provides me with the opportunities to improve myself", "9.7: I can spare enough time for my hobbies and loved ones", "9.8: I think I am exposed to mobbing" and "9.9: I am exposed to psychological violence by my patients".

**** Questions:** "10.1: Do you smoke?", "10.2: Do you use alcohol?", "10.3: Do you have psychological support?, "10.4: Do you use antidepressants?", "10.5: Do you think to quit the practice?", "10.6: Have you worked as an assistant in another department before?", ve "10.7: Do you want to get specialized training in another department?".

[t]: Reverse proposition

Discussion:

Physicians who receive residency training can be expected to

be affected by burnout syndrome due to their long working hours and workloads. In our study, it was determined that very few of the assistant doctors were not affected by burnout syndrome, approximately one quarter experienced severe burnout syndrome (22.8%), and approximately one-fifth needed professional help (20.7%). Calculation of the average BS-SF score as 4.35 indicates that assistant doctors have a serious level of burnout.

In the study, it has been founded that female assistants are more affected by burnout syndrome ($p<0.05$). It can be thought that women and men perceive their roles differently in social life, culturally, women have more responsibilities related to family life besides business life, and gender inequality can be the cause of this. In other studies, it has been found that gender is a determining factor in burnout against women (Akbolat & Oguz, 2008; Serinken et. al., 2003; Karlıdag et. al., 2000; Shams & El-Masry, 2013).

In this study, no relationship was found between marital status and having children, and burnout syndrome (for each one, $p>0.05$). There are studies reporting similar results (de Oliveira Jr et. al., 2013; Magalhães et. al., 2015; Abut et. al., 2012). There are also studies in which burnout is more common in those who are married (Shams & El-Masry, 2013). Some studies show that burnout is more common in those who have children, as well as differing by gender (Magalhães et. al., 2015; Shams & El-Masry, 2013; Morais et. al., 2006), In another study from Turkey, the relationship between having children has not been shown to burnout (Turgut et al., 2016).

In our study, there is no difference between the groups according to the assistants 'fields of expertise and the reasons for the assistants' choice of medicine ($p> 0.05$). In a study conducted in Mexico, it was found that burnout was more common in assistants working more than 80 hours a week and in assistants in the surgical specialty. (López-Morales et. al., 2007). In a study conducted in Greece, it was stated that most of the exhausted assistants worked in surgical specialties (Zis et. al., 2014). Various studies have reported that assistants in non-surgical branches experience higher levels of emotional burnout (Panagopoulou et al., 2006; Dyrbye et al., 2018). It can be thought that surgical assistants with burnout syndrome are underrepresented in our study group.

In our study, it was found that burnout increased with increasing age. We can think of the reason for this that things have become routine and become monotonous and weary. It has been reported in various studies that there is no correlation between burnout and age (Sayıl et al., 1997; Guduk et al., 2005; Kurcer, 2005). However, there are also studies reporting that young age creates a tendency to burnout (Wang et al., 2014; Turgut et al., 2016; Wang et al., 2020).

In our study, no relationship was found between burnout and the reasons for choosing the physician professions, the duration of the assistant doctor, and the number of monthly shifts ($p> 0.05$ for each). In a study conducted on anesthesia assistants, it was shown that in the context of emotional exhaustion and depersonalization, 2nd-year assistants were worse than 4th-year assistants (Turgut et al., 2016). In another study, it was concluded that the emotional exhaustion level of senior assistants increased due to the increase in workload (Ersoy et al., 2014).

It has been reported that there is a significant relationship between nighttime seizures and burnout (Nassar et al., 2020; Huang et al., 2020). The increase in the time spent during the assistant doctor period, the increase in responsibilities, and the decrease in the number of seizures may have prevented the difference in terms of burnout by balancing each other.

In the study, burnout scores are higher in those who think that they are not suitable for the medical discipline they received specialization training ($p <0.05$). Considering hat residency training is a difficult and exhausting process, it can be thought that motivational deficiencies may cause burnout. In some studies from Turkey, the expertise is not related to burnout, it was reported that the cause of burnout is different topics (Oray et al., 2013, Marakoglu et al., 2013).

In the study, it has been observed that most of their physicians are not satisfied with their income and that there is a relationship between burnout syndrome and income dissatisfaction. Different studies have reported a negative relationship between monthly income and burnout (Gunusen & Ustun, 2010; Taycan et al., 2006; Bilici et al., 1998; Molassiotis & Haberman, 1996). Job satisfaction score average was found to be high for employees who do not have difficulty in making a living (Can et al., 2006).

In our study, the majority of the study group accepted that there were no opportunities to help him develop in his institution, and burnout was observed more in those who marked this proposition. Increasing the opportunity to participate in training and research projects during the assistant doctor period training process can reduce the burnout levels of the assistant doctors.

Similar to the literature, a significant relationship was found between not being able to devote time to hobbies and burnout ($p <0.05$). It can be said that the management of people's non-work time is important in terms of preventing burnout (Beyhan et al., 2013, Malaquin et. Al. 2017).

It is reported that those working in the medical field in our country are at high risk of mobbing (Dikmetas et al., 2011). According to the results of a meta-analysis study, it was found that there is a moderately positive and significant relationship between mobbing and burnout. It can be said that mobbing is common in sectors such as health and education and that mobbing negatively affects employees' motivation, work efficiency, and performance (Hosgor & Gun, 2020; Albar & Ofluoglu, 2017). In our study, similar to the literature, exposure to mobbing and psychological violence from patients were found to increase the risk of burnout. It has beenwn that the risk of being subjected to violence in healthcare workers is considerably higher than that of other service sector employees (Kingma, 2001). It can be said that individuals who perceive psychological violence in the workplace will feel higher levels of emotional exhaustion and this will reflect negatively on their health and job-related attitudes such as job commitment and job satisfaction (Dikmetas et al., 2011; Hosgor & Gun, 2020).

As in the study of Marakoglu et al. (2013), no relationship was found between smoking and alcohol use of assistant doctors and burnout syndrome in our study. In a study from Turkey, it was found to be causing a significant increase in smoking in depersonalization scores of burnout (Kurcer, 2005). Similar to our study, studies in Saudi Arabia and the UK have shown that alcohol is a rarely used stress-coping strategy among assistants (Alosaimi et al., 2015; McKinley et al., 2020). Unlike these studies, there are also studies showing that excessive alcohol use is associated with high levels of burnout (Lebensohn et al., 2013).

In our study, there was no relationship between antidepressant use and burnout syndrome in assistant doctors, while burnout was higher in patients who take psychological support. In one study, prescription drug use was the only health factor associated with the absence of burnout (Eckleberry-Hunt et al., 2009). This result can be explained by the better condition of those receiving treatment for burnout or

other problems. In a study examining burnout in psychiatric assistants in Canada, it was reported that 54% of assistants with burnout syndrome received psychotherapy during their assistant training period (Kealy et al., 2016). In a study conducted in China, it was shown that depressive symptoms are particularly associated with emotional exhaustion (Zhang et al., 2019). A study in Ohio revealed that 70% of depressive assistants were not treated (Levy et al., 2019). Studies have shown that burnout is associated with depression and anxiety and this leads to self-prescribing psychotropic medication, and receiving psychotherapy (Kealy et al.2016; Talih, et al., 2016; Chan et al., 2019). Based on all these data, it can be said that there is a relationship between depression and burnout, and some of the assistants who experience these disorders are not treated, and some of them do not receive adequate treatment, although they receive psychological support. Assistant physicians suffering from burnout syndrome sought to find solutions to their problems and increase job satisfaction by getting psychological help. However, their solution was inadequate, probably because the business conditions remained the same. It has been observed that intervention studies for psychological difficulties experienced by assistant doctors do not reduce burnout rates (Busireddy et al., 2017).

In our study, a positive correlation was found between the level of burnout and the desire to quit practicing medicine ($p < 0.05$). In a study conducted on high burnout rates in a tertiary training hospital in China, parallel to the results of our study, it was observed that the intention to leave the job was high in assistant doctors who experienced burnout. Burnout syndrome is not only the reason for decreased job satisfaction but also the reason for the increased resignation or desire to resign (Geng et al., 2020; Zhang & Feng, 2011). Lack of employee job satisfaction and reasons for stopping work; low pay, high workload, mobbing, controversial doctor-patient relationships, and safety concerns (Jiang et al., 2019, Cetin et al., 2019). In our study, while the level of burnout was higher in assistant doctors who wanted to specialize in another department, no relationship was found between being an assistant in another department ($p > 0.05$). It can be thought that the desire to quit the job or the expertise of another department has an effect on job satisfaction. A negative relationship was found between job satisfaction and burnout ($p < 0.05$). One from causes of this result may be it follows: More than half of the assistants do not recommend the medical profession by the study's result.

Limitatitons:

The first limitation of this study is that it is a cross-sectional study. On the other hand, another limitation is that the margin of error is taken as 10% in the sample size calculation and that participation cannot be increased based on volunteerism.

Conclusion:

This study provides evidence that burnout syndrome is common among assistant doctors who make up the study group. It is recommended that psychological support services for assistant doctors be provided in an effective and sustainable manner.

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