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ORIGINAL RESEARCH

Anger, Coping, and Affective Temperament in Opioid-Dependent Men: A Controlled Study

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Main Points

- Opioid dependent males had higher anger level, poorer anger control, and higher cyclothymic and hyperthymic temperamental characteristics and use more dysfunctional coping strategies compared to controls.
- Anger levels (trait anger, anger-in and anger-out) were all positively correlated with dysfunctional coping strategies in opioid dependent group.
- In the opioid dependent group, cyclothymic temperament was positively correlated with trait-anger, anger-in and dysfunctional coping strategies and hyperthymic temperament was negatively correlated with the age of onset of opioid use.
- Treatment planning in the opioid dependents that contains assessment and approaches to decrease anger level and maladaptive coping styles may help better long-term outcomes.
- Improving the affective state in terms of cyclothymic and hyperthymic temperaments in the opioid dependents may reduce the rate of relapse.

Abstract

This study aimed to investigate the anger levels, coping strategies, and affective temperaments of men with opioid dependence compared with a control group. The study included 50 male outpatients with opioid dependence who had completed the detoxification process. A total of 50 men who matched the study group in terms of age, sex, and education level were included as the control group. The state trait anger expression scale; coping inventory; and temperament evaluation of Memphis, Pisa, Paris, and San Diego auto questionnaire scales were completed by all the participants. The trait anger, anger-in, and anger-out scores of the case group were significantly higher than those of the control group. Cyclothymic and hyperthymic temperament scores were significantly higher in the case group. In the case group, mental disengagement, focus on and venting of emotions, and behavioral and alcohol-drug disengagement scores were significantly higher. The patients in the case group were also less likely to use humor, emotional and social support, and planning. In conclusion, a higher level of anger in opioid-dependent men was observed with the use of dysfunctional methods to cope with stress and hyperthymic and cyclothymic temperament properties compared with the control group. Treatment planning for anger-control, affective temperaments, and coping strategies are likely to help in a positive prognosis.
Keywords: Opioid dependence, anger, coping, affective temperament, substance use

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Introduction

Opioid dependence is a significant public health problem worldwide in terms of morbidity and mortality (Evren et al., 2014a). Despite the prevalence of abstinence-oriented symptomatic and buprenorphine/naloxone maintenance treatments in Turkey, high rates of relapse are seen, and opioid dependence is still an important public health problem

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(Evren et al., 2014a; Evren et al., 2014b). Opioid dependence is a multifactorial disorder, including individual characteristics, such as biological properties, negative emotions such as anger, and coping strategies with stress (Evren et al., 2014a; Evren et al., 2014b; Eftekhari, Turner, & Larimer, 2004).

Coping strategies are defined as a combination of emotional, cognitive, and behavioral regulatory processes. Problem-focused (adaptive) coping, emotion-focused coping, and dysfunctional (maladaptive, avoidant) coping are the main coping styles. Problem-focused coping strategies are action focused and aim to solve the problem and eliminate the stress factor. Emotion-focused coping, another form of adaptive coping, aims to reduce the negative emotions of stress by seeking support and accepting responsibility. Dysfunctional coping styles aim to deny or ignore and reduce dealing with stress and play an important role in the development of substance use disorders (Eftekhari, Turner, & Larimer, 2004; Hyman et al., 2009; Toker, Tiryaki, Özçürümez, & İskender, 2011; Carver, Scheier, & Weintraub, 1989). According to Khantzian (1977), opioid-dependent individuals use dysfunctional defense mechanisms of denial and disavowal to cope. Therefore, considering that they experience higher levels of stress than opioid non-dependent individuals (Hyman et al., 2009), coping styles associated with stress-related factors become important in the treatment of substance dependence.

Anger is defined as a negative emotion felt by the individual when irritated or frustrated. It is associated with psychological distress and coping strategies. Individuals who are good at anger-control show greater use of adaptive coping strategies and cope with stress by rational behavior (Maan Diong et al., 2005). A strong relationship has been demonstrated between substance use and the level of anger as well as form of expression of anger (Evren et al., 2014b; Eftekhari, Turner, & Larimer, 2004; Ekinci, Kural, & Yalçınay, 2016). Individuals with higher anger levels using maladaptive coping styles are more likely to opt for substance use to alleviate their stress (Toker, Tiryaki, Özçürümez, & İskender, 2011).

Besides anger level and coping styles with stress, individual differences in personality development and structure also have a strong effect on the risk of substance use (Evren et al., 2014a; Evren et al., 2014b). Temperament is part of the basic organization of personality and the biological basis of the effect of genetics on personality traits. A total of 5 affective temperaments (hyperthymic, cyclothymic, depressive, irritable, and anxious) have been studied in substance use disorders (Akiskal, 1987). Some of these temperaments have been found to be associated with substance abuse and relapse. However, the results of previous studies have conflicted with each other regarding the association of affective temperaments with substance use (Yehya et al., 2019; Khazaal et al., 2013; Rovai et al., 2017; Maremmani et al., 2009; Iliceto et al., 2010). Thus, it is important to consider the underlying factors, such as affective temperaments, to effectively plan the treatment of patients dependent on opioids (Yehya et al., 2019).

Considering the high prevalence of opioid dependence and the rates of relapse both in Turkey and worldwide (Evren et al., 2014a; Evren et al., 2014b; Iliceto et al., 2010), identification of psychological factors contributing to the development and maintenance of opioid dependence remains an important priority. Thus, our study had 2 goals: to compare opioid-dependent men scheduled for buprenorphine/naloxone treatment with a control group on the measures of anger, coping styles, and affective temperament traits and to investigate the relationship between anger, coping strategies, and affective temperaments within the sample.

Methods

Participants and Procedure

This cross-sectional study was carried out in Konya Training and Research Hospital, Treatment and Training Center for Alcohol and Substance Dependence (AMATEM) in Konya, Turkey, between March 2017 and June 2017. A total of 50 male consecutive opioid-dependent outpatients and 50 healthy male controls were included in the study. All the patients were on buprenorphine treatment. Patients who had any other substance use disorder according to interview and laboratory tests and experienced any psychotherapy were excluded from the study. In the control group, the absence of substance use disorders could not be ensured by urine or blood tests owing to ethical considerations. Controls using any substances according to psychiatric interview were not included in the study.

All participants were above the age of 18 years and at least elementary school graduates. The individuals with cognitive disorder, mental retardation, severe mental disorders (for example, schizophrenia, major depression, and bipolar disorder), and severe chronic medical disorders were not included in the study. According to these criteria, 18 patients with opioid dependence were excluded.

A semi-structured form was used for recording the sociodemographic characteristics. A structured clinical interview for the Diagnostic and Statistical Manual of Mental Disorders-IV-clinical version (First, Spitzer, Gibbon, & Williams, 1997) with the Turkish version Axis I disorders (Çorapçıoğlu, Aydemir, Yıldız, Esen, & Köroğlu, 1999) was used for psychiatric assessment. All the participants filled out the state trait anger expression scale (STAXI); coping inventory (COPE); and temperament evaluation of Memphis, Pisa, Paris, and San Diego auto questionnaire (TEMPS-A). This study was approved by the Ethics Committee of Selçuk University (date: 08.02.2017, number: 2017/46).

Measurements

State Trait Anger Expression Scale: This 34-item Likert-type scale evaluates the anger levels in individuals (Spielberger, Jacobs, Russell, & Crane, 1983). The first 10 questions measure trait anger, and the other 24 questions measure the expression styles of anger (that is, anger-in, anger-out, and anger-control). Higher scores in trait anger, anger-control, anger-out, and anger-in indicate that higher levels of anger, better control of anger, easy expression of anger, and higher levels of suppressed anger, respectively. This scale was validated with Turkish patients (Ozer, 1994).

Coping Inventory: This is 60-item Likert-type scale evaluates coping strategies (Carver, Scheier, & Weintraub, 1989) and has 3 subscales and 15 sub-subscales. Use of instrumental social support, active coping, restraint coping, suppression of competing activities, and planning are included in the problem-focused coping strategies. Emotion-focused strategies include positive reinterpretation and growth, turning to religion, humor, use of emotional social support, and acceptance. Mental disengagement, focus on and venting of emotions, denial, behavioral disengagement,

and alcohol-drug disengagement subscales are dysfunctional coping strategies. The scale was validated for use with Turkish patients (Agargün, Beiroğlu, Kıran, Özer, & Kara, 2005).

Temperament Evaluation of Memphis, Pisa, Paris, and San Diego Auto Questionnaire: This scale is a self-repot scale and includes a 100 yes or no type questions that evaluate affective temperaments (Akiskal et al., 2005). This scale can be used for all psychiatric patients. It determines the 5 affective temperaments (hyperthymic, cyclothymic, depressive, irritable, and anxious) in the patient's lifetime. The reliability and validity study for the Turkish form has been conducted previously (Vahip et al., 2005).

Table 1.
Socio-demographic characteristics of the dependent and control groups

	Dependent Group (n=50)	Control Group (n=50)	p
Age (mean±SD)	25.36±5.88	26.42±4.81	0.160**
Marital Status (n,%)			
Married	20 (43.5%)	26 (58%)	0.230*
Single	30 (55.6%)	24 (42%)	
Education (year) (mean±SD)	8.56±3.10	9.40±3.41	0.398**
Employment status (n,%)			
With employment	40 (80%)	45 (90%)	0.354*
Without employment	10 (20%)	5 (10%)	
Duration of disorder (year)	4.40±1.75		
Age at first opioid use (year)	20.16±4.60		

SD: Standard Deviation, *Chi-square test, **Mann-Whitney U test

Statistical Analysis

Statistical analyses were performed using the Statistical Package for Social Sciences software for Windows version 18.0 (IBM SPSS Corp.; Armonk, NY, USA). The Kolmogorov-Smirnov test was used for analysis of normality. For evaluating the difference between the continuous and categorical variables, we used the Mann-Whitney U and Chi-squared tests. Correlations between the scores of the scales were evaluated using the Spearman's rho (r) correlation test. The significance level was accepted as $p<0.05$ for all these analyses.

Results

The mean age of the participants was 26.39±5.45 years (n=100). The groups were similar in terms of age, education level, occupation, and marital status. The mean age at the onset of opioid use was 20.16±4.60 years. The mean length of substance use was 4.40±1.75 years (Table 1).

The mean scores of the STAXI and subscales were significantly higher in the opioid-dependent individuals than in the control group ($p<0.001$ for trait anger, $p=0.001$ or anger-in, and $p<0.001$ for anger-out). Anger-control was significantly higher in the control group than in the opioid-dependent group ($p=0.005$). Cyclothymic and hyperthymic temperaments were found to be higher in the case group ($p=0.034$ and $p=0.006$, respectively). The mean score of the COPE subscale "problem-focused coping" was significantly higher in the control group ($p=0.029$). In contrast, the

Table 2.
Scores for STAXI, COPE and TEMPS-A for the dependent and control groups

	Opioid Dependent Group (n=50) (mean±SD)	Control Group (n=50) (mean±SD)	z	p
STAXI				
Trait anger	21.34±7.58	18.26±6.33	-3.996	0.000
Anger-in	16.62±5.73	14.96±5.33	-3.185	0.001
Anger-out	17.14±5.46	14.66±4.16	-4.634	0.000
Anger-control	18.96±5.98	20.66±6.66	-2.825	0.005
TEMPS-A				
Depressive temperament	9.02±3.59	8.90±3.07	-0.194	0.846
Irritable temperament	8.00±3.53	7.90±2.79	-2.804	0.465
Cyclothymic temperament	10.17±4.33	9.32±3.97	-2.122	0.034
Hyperthymic temperament	9.57±4.04	8.42±3.14	-3.629	0.006
Anxious temperament	11.20±5.16	11.58±4.40	-0.470	0.464
COPE				
Problem-oriented coping	54.59±8.71	56.54±5.22	-2.181	0.029
Emotion-oriented coping	52.86±7.65	54.64±5.82	-1.988	0.047
Dysfunctional coping	41.99±7.89	38.40±4.73	-5.049	0.000

SD: Standard Deviation; Mann-Whitney U test, STAXI: State-Trait Anger and Anger Expression Scale; TEMPS-A: Temperament Evaluation of Memphis, Pisa, Paris and San Diego Auto Questionnaire; COPE: Coping Inventory

Table 3.
Comparison of COPE scores in patient and control groups

	Opioid dependents (n=50)	Control group (n=50)	z	p
PROBLEM FOCUSED				
Use of instrumental social support	11.10±2.69	11.56±1.86	-1.611	0.107
Active coping	11.53±2.54	11.84±2.21	-1.244	0.213
Restraint coping	10.10±2.20	10.38±1.96	-1.098	0.272
Suppression of competing activities	10.46±2.41	10.78±1.82	-1.569	0.117
Planning	11.38±2.36	11.94±2.23	-2.462	0.014
EMOTIONAL FOCUSED				
Positive reinterpretation and growth	12.15±2.39	12.18±2.05	-0.164	0.870
Turning to religion	12.38±2.53	12.26±2.08	-0.535	0.593
Humor	8.45±2.52	9.20±2.21	-3.220	0.001
Use of emotional social support	10.25±2.66	11.12±1.72	-3.091	0.002
Acceptance	9.64±2.50	9.88±1.89	-0.690	0.490
DYSFUNCTIONAL				
Mental disengagement	9.28±2.16	8.62±1.63	-3.527	0.005
Focus on and venting of emotions	10.37±2.39	11.00±1.75	-2.570	0.003
Denial	8.26±2.64	8.24±2.17	-0.431	0.736
Behavioral disengagement	6.67±1.96	6.10±1.23	-3.365	0.008
Alcohol-drug disengagement	7.46±4.08	4.54±0.81	-7.138	0.000

SD: Standard Deviation, Mann-Whitney U test

Table 4.
The correlations between STAXI and age at first opioid use, COPE, and TEMPS-A in the case group

	1	2	3	4	5	6	7	8	9	10	11	12
Trait Anger	1											
Anger-in	0.798*	1										
Anger-out	0.750*	0.636*	1									
Anger-control	-0.031	0.125	-0.126	1								
COPE-A	0.185	0.264	0.071	-0.126	1							
COPE-B	0.156	0.158	0.238	0.082	0.697*	1						
COPE-C	0.587*	0.513*	0.460*	.139	0.256	0.269	1					
Depressive	0.417*	0.346**	0.250	-0.121	-0.063	0.011	0.332**	1				
Cyclothymic	0.476*	0.450*	0.225	-0.182	0.060	0.127	0.416**	0.679*	1			
Hyperthymic	-0.051	-0.029	-0.131	0.150	0.210	0.437**	0.007	0-.101	0.136	1		
Irritable	0.513*	0.560*	0.393*	0.023	-0.047	-0.101	0.475*	0.592*	0.588*	-0.087	1	
Anxious	0.512*	0.529*	0.446*	-0.177	-0.014	0.063	0.354**	0.664*	0.672*	-0.099	0.596*	1
Age at first use	-0.169	-0.167	-0.169	-0.168	0.181	0.096	-0.338*	-0.230	-0.003	-0.307*	-0.189	-0.240

r=Spearman's correlation coefficient in the opioid dependent group, **p<0.05, *p<0.01

"dysfunctional coping" subscale was found to be significantly higher in the opioid-dependent group (p=0.000) (Tables 2 and 3).

In correlation analyses, the mean scores of trait anger and anger-in were positively correlated with the scores of dysfunctional coping and irritable, depressive, cyclothymic, and anxious temperaments in the opioid-dependent group. The mean score of anger-out was correlated with the dysfunctional coping score (Table 4). When the correlations between the subscales of COPE and TEMPS-A were examined, the dysfunctional coping scale of the COPE significantly correlated with the mean score of depressive (r=0.332, p<0.05), cyclothymic (r=0.416, p<0.01), and irritable (r=0.475, p<0.01) temperaments.

Discussion

The study results suggest that patients with opioid dependence have higher anger levels and poorer anger-control; demonstrate less use of problem-focused and more use of dysfunctional coping strategies; have more cyclothymic and hyperthymic temperaments than controls; trait anger, anger-out, and anger-in were all positively correlated with dysfunctional coping styles; cyclothymic temperament was positively correlated with trait anger, anger-in, and dysfunctional coping styles; and hyperthymic temperament was negatively correlated with the age of onset of opioid use.

Consistent with the findings of this study, substance users have previously been reported to experience relatively higher levels of anger than controls (Eftekhari et al., 2004; Ekinci et al., 2016). High anger levels increase the negative effect of substance use on the individual's life (Ekinci et al., 2016). Behavior of substance users varies by style of anger expression. Higher level of anger-out is independently related to substance use and its consequences (Eftekhari, et al., 2004). Anger may motivate a person to use substances to cope with the negative emotions (Taremian et al., 2018). Therefore, anger level and expression may be an important risk factor that should be considered in the treatment of substance use disorders.

According to the social learning model, lack of adaptive coping styles plays an important role in maintaining substance use. Problem-oriented strategies are good predictors of mental health status in male drug abusers, unlike maladaptive coping strategies (Taremian et al., 2018; Bandura, 2001). Corroborating data from this study, substance users reported lesser use of adaptive coping strategies with stress than controls (Eftekhari et al., 2004; Hyman et al., 2009). Toker et al. (2011) have reported that the use of emotional and social support, mental disengagement, active coping, turning to religion, and focusing on problems were significantly lower in substance users. In this study, the control group was found to use active coping, emotional support, humor, planning, and focusing on and venting out emotions to a greater extent. The opioid-dependent group was found to have a higher substance abuse as well as mental and behavioral disengagement. When the study findings are evaluated within the stress-coping model of the addictive process (Wills & Hirky, 1996), it can be hypothesized that addiction decreases the adaptive abilities, such as making plans, taking action, or searching for solutions, by decreasing motivation or vice versa. In this context, knowledge of coping attitudes used by the patient in various stressful situations may help to determine the therapeutic goals and efficacy. Better understanding of the dysfunctional coping styles and identifying and improving the adaptive coping styles used by the patient may affect the mental health and treatment course positively in opioid-dependent individuals.

Very few studies have investigated the relationship between coping styles and anger in substance users. It has been reported that dysfunctional coping strategies can increase anger levels in male adolescent offenders, and both dysfunctional coping and anger are independent risk factors for substance use (Eftekhari, et al., 2004). Therefore, higher anger levels may be both the cause and result of coping strategies, and opioid use may function as a self-medication strategy to cope with negative feelings, such as anger. In our study, the trait anger, anger-out, and anger-in scores positively correlated with dysfunctional coping strategies in the opioid-dependent group, confirming the results of the previous studies (Eftekhari et al, 2004; Zaaijer et al., 2014). As a result, anger and coping styles are important factors when evaluating a patient with substance use disorder (Eftekhari et al, 200).

Affective temperaments may be a marker to determine the vulnerability of an individual to drug use (Charfi et al., 2019). This subject has been investigated in many studies; however, the findings are not consistent (Yehya et al., 2019; Khazaal et al., 2013; Rovai, et al., 2017; Maremmani et al., 2009; Iliceto et al., 2010; Charfi et al., 2019; Salem et al, 2014). Some studies have shown that patients with opioid dependence displayed significantly higher cyclothymic (Rovai et al., 2017; Maremmani et al., 2009; Iliceto et al., 2010) and hyperthymic scores (Yehya et al., 2019; Khazaal et al., 2013; Charfi et al., 2019; Salem, Vyssoki, Lesch, & Erfurth, 2014) than controls; whereas, other studies have failed to show any relationship with cyclothymic (Yehya et al., 2019; Charfi et al., 2019; Salem, Vyssoki, Lesch, & Erfurth, 2014) and hyperthymic scores (Rovai, et al., 2017; Maremmani et al., 2009; Iliceto et al., 2010). In this study, hyperthymic and cyclothymic temperaments were significantly higher in the case group. Individuals with hyperthymic and cyclothymic temperaments may use opioids as a self-medication strategy to deal with negative feelings and reduce fluctuations in their mood (Zaaijer et al., 2014). Considering that affective temperament determines the occurrence of mood disorders (Goto et al., 2011), it is important to evaluate and treat patients with opioid dependence in the context of affective temperaments, especially for hyperthymic and cyclothymic temperaments.

Some studies have reported a significant relationship between irritable temperament and substance use (Yehya et al., 2019; Iliceto et al., 2010; Charfi et al., 2019; Salem et al., 2014). These studies have also suggested that irritable temperament was associated with anger and may increase the susceptibility to substance use (Yehya et al., 2019; Iliceto et al., 2010; Charfi et al., 2019). However, similar to the findings of previous studies (Rovai et al., 2017; Maremmani et al., 2009), we found no significant difference in irritable traits between the groups in this study, although irritable temperament positively correlated with anger score. These results may be owing to the fact that a particular temperament can correlate specifically to one type of substance use more than others. Some of the studies suggesting that irritability can increase the risk of substance use included patients who abused multiple or different substances (Yehya et al., 2019; Charfi et al., 2019). In addition, it has been suggested that those who use cocaine, alcohol, and other stimulants show more irritable temperament, and those who use opioids show more depressive and hyperthymic temperaments. Besides being susceptible to substance use, it is also possible that substance use may increase irritability (Moore et al., 2005). Therefore, it may be necessary to evaluate the patient according to the type of substance chosen to determine the relationship with affective temperaments.

The age of onset of psychoactive substance use has been reported to be negatively correlated with irritable temperament (Charfi et al., 2019). However, in this study, the age of onset of opioid use negatively correlated with hyperthymic temperament as well as dysfunctional coping styles. These results suggest that coping

strategies and affective temperaments that predispose an individual to mood disorders may affect the initiation of abuse of a specific substance.

Limitations and Directions/Suggestions for Future Research

This study has several limitations. The scales used are self-reported measures. As the case group included only patients receiving treatment and men, the study findings cannot be generalized to opioid-dependent individuals receiving no treatment and women. Furthermore, cross-sectional design of this study meant that causality could not be determined. The other limitation is that the severity of opioid use was not measured by using any scale.

In conclusion, the study results show that opioid-dependent men have higher anger levels and hyperthymic and cyclothymic affective temperaments and use dysfunctional coping styles. Assessment of these individual factors at the beginning of treatment may identify the strengths and deficits of the patient and help plan the treatment process. Approaches that decrease the anger levels and avoidant coping and improve affective state may help to obtain better long-term outcomes and decrease relapse after opioid dependence treatment, particularly in the context of the high relapse rates observed in this population (Evren et al. 2014a). The relationship between these variables should not be ignored during the treatment of opioid dependence. Future longitudinal studies should be conducted to understand these traits better and determine more specific treatment strategies.

Ethics Committee Approval: Ethics committee approval was received for this study from the Ethics Committee of Selçuk University (date: 08.02.2017, number: 2017/46).

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Genişletilmiş Özet

Öğrencilerde Madde Kullanımına İlişkin Medya Okuryazarlığının Araştırılması: Niteliksel Bir Çalışma

Amaç

Opioid bağımlılığı süreğenlik gösteren, relapslarla seyreden ve somatik, psikolojik ve davranışsal belirtiler gösteren önemli bir halk sağlığı sorunudur. Opioid bağımlılığının etyolojisinde kişilik özelliklerinin yanında biyolojik, psikolojik ve sosyoekonomik faktörler de rol oynamaktadır. Bu çalışmada, opioid bağımlılığı olan erkek hastalarda öfke düzeyi, stresle baş etme stratejileri ve afektif mizaç özelliklerinin kontrol grubuyla karşılaştırılarak araştırılması amaçlanmıştır.

Yöntem

Çalışmaya DSM-IV-TR tanı kölçütlerine göre, detoksifikasyon sürecini tamamlamış opioid bağımlılığı olan ardışık 50 erkek hasta dâhil edildi. Kontrol grubu olarak yaş, cinsiyet ve eğitim düzeyleri yönünden benzer olan ve alkol veya madde kötüye kullanımı ya da bağımlılığı olmayan 50 sağlıklı erkek alındı. Tüm bireylerle klinik görüşme SCID-I kullanılarak yapıldı. Tüm katılımcıların Sürekli Öfke ve Öfke Düzeyi Ölçeği (SÖÖTÖ), COPE Baş Etme Ölçeği, TEMPS-A kişilik testi doldurmaları sağlandı.

Bulgular: Gruplar arasında yaş, eğitim düzeyi, çalışma ve medeni durum özellikleri yönünden fark yoktu. Vaka grubunda toplam opioid kullanma süresi 4,40±1,75 yıl, opioid başlama yaşı 20,16±4,60 yıl olarak saptandı. Sürekli öfke, öfke-içe, öfke-dışa ortalama skorları kontrol grubuna göre anlamlı olarak yüksek saptandı. Vaka grubunda siklotimik ve hipertimik mizaç skorları belirgin olarak yüksekken; depresif, irritabl ve anksiyöz mizaç özellikleri yönünden fark saptanmadı. Opioid bağımlılığı olan grupta zihinsel olarak boş verme, soruna odaklanma ve duygusal açığa vurma, davranışsal boş verme, alkol ve madde kullanımı alt ölçek skorları anlamlı olarak yüksek olduğu saptandı. Opioid bağımlılığı olan bireylerin şakaya vurma, emosyonel ve sosyal destek kullanımı ve plan yapma başa çıkma yöntemlerini daha az kullandıkları bulundu. Korelasyon analizlerinde; sürekli öfke, öfke-içe ve öfke-dışa ve siklotimik ve irritabl mizaç skorları disfonksiyonel baş etme skoruyla pozitif korele olarak saptandı. Hipertimik mizaç ortalama skoru ise opioid kullanmaya başlama yaşı ile negatif korele olarak saptandı.

Tartışma

Opioid bağımlılığı olan bireyler yüksek seviyede öfke düzeylerinin yanında stresle baş etmede maladaptif metodları kullanmaktadırlar. Ayrıca bu bireyler daha yüksek oranda hipertimik ve siklotimik mizaç özelliklerine sahip olup bu mizaç özellikleri erken yaşta opioid kullanmaya başlama ile korelasyon göstermektedir. Opioid bağımlılığı olan kişilerin tedavisine ek olarak öfke kontrolü, mizaç özellikleri ve baş etme mekanizmalarının gözden geçirilmesi ve gerekli müdahalelerin yapılmasının bağımlılığın prognozunda olumlu etkileri olacaktır.