

# The Relationship between Attachment Styles and Emotion Regulation Difficulties on Adolescents with Psychiatric Disorders

Ergenlerdeki Bağlanma Stilleri ve Duygu Düzenleme Güçlükleri ile  
Psikiyatrik Bozuklukları Arasındaki İlişki

**Dişad Yıldız Miniksar<sup>1</sup>, Mahmut Kılıç<sup>2</sup>**

<sup>1</sup> Yozgat Bozok Üniversitesi Tıp Fakültesi Çocuk ve Ergen Psikiyatrisi Anabilim Dalı, Yozgat, Türkiye

<sup>2</sup> Yozgat Bozok Üniversitesi, Halk Sağlığı AD, Yozgat, Türkiye

Yazışma Adresi / Correspondence:

**Dişad Yıldız Miniksar**

Yozgat Bozok Üniversitesi, Çocuk ve Ergen Psikiyatrisi Anabilim Dalı, Yozgat/Türkiye

T: +90 505 982 12 44

E-mail : [dr\\_dilsad1984@hotmail.com](mailto:dr_dilsad1984@hotmail.com)

Geliş Tarihi / Received : 27.04.2023

Kabul Tarihi / Accepted: 09.06.2023

Çevrimiçi / Online: 30.06.2023

Orcid ve Mail Adresleri

Dişad Yıldız Miniksar <https://orcid.org/0000-0002-6389-4377>, [dr\\_dilsad1984@hotmail.com](mailto:dr_dilsad1984@hotmail.com)

Mahmut Kılıç <https://orcid.org/0000-0002-8921-1597>, [mahmutkili@yahoo.com](mailto:mahmutkili@yahoo.com)

Cite this article/Atf:

D Yıldız Miniksar, M Kılıç, The Relationship between Attachment Styles and Emotion Regulation Difficulties on Adolescents with Psychiatric Disorders.

Sakarya Med J 2023 ;13(2):277-286 DOI: 10.31832/smj.1288608

## Abstract

**Introduction** In this study, we aimed to compare the attachment styles and emotion regulation difficulties of adolescents with psychiatric disorders and healthy adolescents, and to examine the factors affecting attachment styles and emotion regulation difficulties.

**Materials and Methods** In this case-control study, DSM-5 diagnostic system was used for psychiatric diagnoses of adolescents, Difficulties in Emotion Regulation Scale-Short Form (DERS-SF) was used to measure adolescents' levels of emotional dysregulation, and Relationships Scales Questionnaire(RSQ) was used to assess attachment styles.

**Results** Major depressive disorder (MDD) (42.9%) was the most common psychiatric diagnosis. The lowest DERS-SF total score and the highest secure attachment were found in the control group ( $p<0.001$ ;  $p=0.005$ , respectively). DERS-SF total score and dismissive attachment had the highest MDD; fearful attachment was in the anxiety disorders and preoccupied attachment was in the obsessive-compulsive disorder (OCD) group. In the patient group, a positive correlation was found between the DERS-SF total score and attachment style fearful ( $r=0.303$ ), dismissive ( $r=0.301$ ), and preoccupied ( $r=0.349$ ) scores, and a negative correlation was found with the secure score ( $r=-0.239$ ) ( $p<0.05$ ). There was no significant relationship between DERS-SF total and attachment styles in the control group ( $p>0.05$ ).

**Conclusion** In our study, secure attachment was highest and emotion regulation difficulties were lowest in the healthy group. This study is important in terms of showing the positive effects of developing secure attachment and effective emotion regulation strategies in the field of preventive mental health.

**Keywords** Psychiatric disorder, Emotional dysregulation, Attachment, Adolescent

## Öz

**Amaç** Bu çalışmada psikiyatrik bozukluğa sahip ergenler ile sağlıklı ergenlerin bağlanma stilleri ve duygu düzenleme güçlüklerini karşılaştırmayı, bağlanma stilleri ve duygu düzenleme güçlüklerini etkileyen faktörleri incelemeyi amaçladık.

**Yöntem ve Gereçler** Bu vaka-kontrol çalışmasında ergenlerin psikiyatrik tanıları için DSM-5 tanı sistemi, ergenlerin duygu düzenleme güçlüğü düzeylerinin ölçülmesi amacıyla Duygu Düzenleme Güçlüğü Ölçeği-Kısa Form (DDG-K) ve bağlanma stillerini değerlendirmek için İlişki Ölçekleri Anketi (İÖA) uygulandı.

**Bulgular** Psikiyatrik tanılardan en fazla majör depresif bozukluk (MDB) (%42,9) tanısı vardı. DDG-K total skoru en düşük, güvenli bağlanma ise en yüksek kontrol grubunda saptandı (sırasıyla  $p<0,001$ ;  $p=0,005$ ). DDG-K total skoru ve kayıtsız bağlanma en yüksek MDB; korkulu bağlanma anksiyete bozukluklarında ve saplantılı bağlanma OKB grubunda idi. Hasta grubunda DDG-K toplam skoru ile bağlanma stillerinden korkulu ( $r=0,303$ ), kayıtsız ( $r=0,301$ ) ve saplantılı ( $r=0,349$ ) skorları arasında pozitif yönde, güvenli skoru ( $r=-0,239$ ) ile negatif yönde zayıf bir ilişki bulunurken ( $p<0,05$ ), kontrol grubunda bu değişkenler arasında önemli bir ilişki bulunmamıştır ( $p>0,05$ ).

**Sonuç** Çalışmamızda sağlıklı grupta güvenli bağlanma en yüksek, duygu düzenleme güçlükleri en düşüktü. Bu çalışma güvenli bağlanma ve etkili duygu düzenleme stratejileri geliştirilmesinin koruyucu ruh sağlığı alanındaki olumlu etkisini göstermesi açısından önemlidir.

**Anahtar Kelimeler** Psikiyatrik bozukluk, Duygu düzenleme güçlüğü, Bağlanma, Ergen



## GİRİŞ

Attachment is an emotional bond that begins with a child's seeking of closeness with a caregiver, particularly in stressful situations, and has consistency and continuity<sup>1</sup>. Attachment is not limited to childhood but continues throughout later developmental stages such as adolescence and adulthood, and lasts throughout life<sup>2</sup>. In adolescence, attachment is strongly influenced by early attachment relationships, and it is observed that securely attached adolescents are closer and more supportive in their peer groups compared to other adolescents<sup>3</sup>.

It is believed that insecure attachment may play a determining role in the psychopathologies that a person may experience later, and secure attachment may be associated with more healthy psychiatric processes<sup>4</sup>. It is thought that children who are not securely attached are more difficult to cope with negative life events in the future and may be prone to mood disorders<sup>1</sup>.

Emotion regulation refers to the process of increasing or decreasing both negative emotions such as anger, fear, and sadness, and positive emotions such as happiness and excitement in accordance with a person's goals or desires, or maintaining the emotion<sup>5</sup>. Difficulties in emotion regulation are associated with psychiatric disorders such as anxiety and depression, as well as coping and problem-solving skills<sup>6</sup>. Attachment and emotion regulation skills also affect each other. Relationships with inconsistent and insensitive attachment figures in childhood hinder the development of effective emotion regulation strategies<sup>7</sup>. Those with a secure attachment style have a high expectation that they can regulate their negative emotions, solve their problems, and be supported without being rejected, criticized, or belittled by others<sup>6</sup>.

The primary aim of this study is to compare the attachment styles and emotion regulation difficulties of adolescents with psychiatric disorders and healthy adolescents, and to determine which psychiatric disorders are affected

by these processes. Our secondary aim is to determine the relationship between attachment styles and emotion regulation difficulties, as well as factors such as age and gender.

## MATERIALS and METHODS

This study was conducted at Yozgat Bozok University Child and Adolescent Psychiatry Clinic using a cross-sectional case-control design. Data was collected from October 2021 to May 2022. DSM-5 diagnostic criteria were used to diagnose psychiatric disorders in adolescents. Individuals with a diagnosis of autism spectrum disorder, intellectual disability, visual or hearing impairments were not included in the study. Adolescents who had not previously received any psychiatric diagnosis, had not sought follow-up or treatment in the child psychiatry department, and had routine check-ups in the pediatrics department were selected as the control group. These adolescents were those who had no systemic or chronic illnesses and who had undergone laboratory tests such as complete blood count and blood biochemistry in addition to general developmental assessment such as height and weight. The Difficulties in Emotion Regulation Scale-Short Form (DERS-SF) was administered to measure the level of emotional regulation difficulties in adolescents, and the Relationship Scales Questionnaire (RSQ) was used to assess attachment styles. Psychiatric evaluation of the control group was also performed according to the DSM-5 diagnostic criteria, and individuals without any psychiatric disorder diagnosis were selected as the control group. The same procedure was applied to the control group. Approval for the study was obtained from the Yozgat Bozok Medical Faculty Clinical Research Ethics Committee (2017-KAEK-1892021.08.25-08). Informed consent forms were obtained from each patient and their relatives.

Sample size: The sample size calculation was performed using G-Power 3.1 program. For this calculation, the arithmetic means and standard deviation of the DERS-SF were used ( $38.71 \pm 12.76$ ). An arithmetic mean of 35.0 was assumed for the control group and an increase of approxi-

mately 15 points was assumed for the patient group. With a type-I error of  $\alpha=0.05$  and a power level of 0.90, the minimum sample size for both the control and patient groups was calculated to be  $n=20$ . After the research, the post-hoc power analysis was performed, and a power level of 0.99 was obtained.

### Data Collection Tools

**Relationship Scales Questionnaire (RSQ):** The RSQ was developed by Griffin and Bartholomew<sup>8</sup>. The Turkish adaptation of the scale was conducted by Sümer and Güngör<sup>9</sup>. The RSQ aims to evaluate four attachment styles: secure, dismissive, fearful, and preoccupied. It consists of 17 items and participants are asked to rate themselves on a 7-point scale (1= not at all like me, 7= very much like me). The secure and dismissive attachment styles are evaluated with five items each, while the fearful and preoccupied attachment styles are evaluated with four items each. Based on the scores obtained from the subscales, individuals are categorized in the group of the attachment style with the highest.

**Difficulties in Emotion Regulation Scale-Short Form (DERS-SF):** This scale was developed by Bjureberg et al.<sup>10</sup> to measure individuals' level of emotion regulation difficulties. The scale consists of 16 items rated on a five-point Likert scale (1 = almost never, 5 = almost always). The scale measures both the total score of emotion regulation difficulties and sub-dimensions including clarity, goals, impulse, strategies, and non-acceptance. A high score on the scale indicates a high level of emotion regulation difficulties. The reliability and validity study of the Turkish version of the scale was conducted by Yiğit and Yiğit<sup>11</sup>.

### Statistical analysis

The data was analyzed using the SPSS statistical software package. Descriptive tables were created for the data. The arithmetic means of the sub-scales of the DERS-SF and the RSQ were compared between the patient and control groups using t-tests and ANOVA. The Chi-square test was

used for the distribution of frequencies.

## RESULTS

Of the adolescents included in the study, 54.8% were female, aged between 11-17 with a mean age of  $14.1\pm 1.72$  years. The proportion of female adolescents in the case group (62.9%) was higher than that in the control group (44.6%) (Table 1). When the psychiatric diagnoses of the adolescents in the case group (70 adolescents) were examined, major depressive disorder (MDD) (42.9%) was the most common, followed by anxiety disorders (30%) and attention deficit hyperactivity disorder (ADHD) (21.4%) (Table 2).

When the control group and those with psychiatric disorders were analyzed separately, there was no statistically significant DERS-SF total and subscales of goals, strategies, and non-acceptance, as well as the RSQ preoccupied subscale scores, were higher in females than in males and were statistically significant ( $p<0.05$ ). There was no statistically significant difference in DERS-SF openness and impulse and RSQ fearful, indifferent, and secure subscale scores ( $p>0.05$ ).

In the correlation analysis, a weak positive correlation was found between the DERS-SF total score and the fearful ( $r= 0.303$ ), dismissing ( $r= 0.301$ ), and preoccupied ( $r= 0.349$ ) attachment style scores, while a weak negative correlation was found with the secure attachment score ( $r= -0.239$ ) in the patient group. Positive correlations were found between the fearful attachment style and the DERS-SF openness ( $r= 0.478$ ) and impulsivity ( $r= 0.287$ ) scores ( $p<0.05$ ), but no significant correlation was found between the fearful attachment style and the DERS-SF goals, strategies, and non-acceptance subscales ( $p>0.05$ ). Positive correlations were found between the dismissing attachment style and the DERS-SF openness ( $r= 0.349$ ) and impulsivity ( $r= 0.290$ ) scores ( $p<0.05$ ), but no significant correlation was found between the dismissing attachment style and the DERS-SF goals, strategies, and non-acceptance sub-

**Table 1.** Gender, age, attachment styles and DERS-SF scores of the patient and control groups

	Control		Patient		Total		P
	n	%	n	%	n	%	
Gender							0,041
Male	31	55,4	26	37,1	57	45,2	
Female	25	44,6	44	62,9	69	54,8	<0,001
Attachment styles	n	%	n	%	n	%	0,012
Fearful	1	1,9	5	7,1	6	4,8	
Dismissive	22	39,3	41	58,6	63	50,0	
Secure	27	48,2	15	21,4	42	33,3	
Preoccupied	6	10,7	9	12,9	15	11,9	
Attachment styles	Mean	SD	Mean	SD	Mean	SD	
Fearful	14,2	4,68	17,9	5,31	16,3	5,35	<0,001
Dismissive	19,7	7,30	22,8	6,56	21,4	7,04	0,013
Secure	20,8	4,73	18,0	6,03	19,3	5,65	0,005
Preoccupied	14,4	5,18	16,2	4,74	15,4	5,00	0,046
DERS-SF	Mean	SD	Mean	SD	Mean	SD	
Clarity	4,4	2,25	6,4	2,49	5,5	2,57	<0,001
Goals	8,6	3,83	12,4	2,94	10,7	3,87	<0,001
Impulse	6,6	3,85	8,2	3,70	7,5	3,83	0,022
Strategies	10,4	5,56	15,8	5,86	13,4	6,31	<0,001
Non-acceptance	6,1	3,25	7,8	3,61	7,0	3,55	0,007
Total	36,1	15,75	50,6	14,06	44,2	16,46	<0,001
Age (Years)	13,4	1,43	14,7	1,69	14,1	1,72	<0,001

DERS-SF: Difficulties in Emotion Regulation Scale-Short Form (DERS-SF)

scales ( $p>0.05$ ). A negative correlation was found between the secure attachment style and the DERS-SF strategies score ( $r= -0.283$ ) ( $p<0.05$ ), but no significant correlation was found between the secure attachment style and the DERS-SF openness, goals, impulsivity, and non-acceptance subscales ( $p>0.05$ ). Positive correlations were found between the preoccupied attachment style and the DERS-SF impulsivity ( $r= 0.240$ ) and strategies ( $r= 0.428$ ) scores ( $p<0.05$ ), but no significant correlation was found between the preoccupied attachment style and the DERS-SF openness, goals, and non-acceptance subscales ( $p>0.05$ ). In the patient group, there was no significant correlation between age and DERS-SF total and subscale scores and attachment style scores ( $p>0.05$ ) (Table 3).

**Table 2.** Diagnostic distribution of psychiatric disorders (Patient group)

	Frequency	Percentage
Major depressive disorder	30	42,9
Anxiety disorders	21	30,0
Generalized anxiety disorder	11	15,7
Panic disorder	7	10,0
Social anxiety disorder	3	4,3
Attention deficit and hyperactivity disorder	15	21,4
OCD spectrum disorders a	4	5,7
Total	70	100,0

<sup>a</sup>1 person including trichotillomania, OCD: obsessive-compulsive disorder

**Table 3.** Correlation between DERS-SF total and sub-dimension scores and Attachment styles scores in the Patient Group

	Age	DERS-SF clarity	DERS-SF goals	DERS-SF impulse	DERS-SF strategies	DERS-SF non-acceptance	DERS-SF total	Fearful	Dismissive	Secure
DERS-SF clarity	0,182	1								
DERS-SF goals	0,146	0,291*	1							
DERS-SF impulse	0,118	0,345**	0,348**	1						
DERS-SF strategies	0,168	0,537**	0,586**	0,471**	1					
DERS-SF non-acceptance	0,019	0,536**	0,295*	0,308**	0,509**	1				
DERS-SF total	0,171	0,694**	0,675**	0,671**	0,894**	0,711**	1			
Fearful	0,110	0,478**	0,194	0,287*	0,212	0,072	0,303*	1		
Dismissive	0,074	0,349**	0,159	0,290*	0,231	0,130	0,301*	0,295*	1	
Secure	-0,120	-0,185	-0,079	-0,169	-0,283*	-0,111	-0,239*	0,019	-0,086	1
Preoccupied	0,234	0,183	0,135	0,240*	0,428**	0,170	0,349**	0,110	-0,143	-0,277*

\*\* , Correlation is significant at the 0,01 level (2-tailed), \* , Correlation is significant at the 0,05 level (2-tailed), DERS-SF: Difficulties in Emotion Regulation Scale-Short Form (DERS-SF)

In the correlation analysis, there was no statistically significant relationship found between the DERS-SF total score and attachment style scores in the control group ( $p>0.05$ ). While there was a significant relationship between attachment style of fearful and DERS-SF strategies ( $p<0.05$ ), no significant relationship was found between DERS-SF and other subscales ( $p>0.05$ ). There was also no significant relationship found between DERS-SF subscales and attachment style of dismissive in the control group ( $p>0.05$ ). A negative relationship was found between DERS-SF strategies and attachment style of secure ( $r= -0.318$ ) ( $p<0.05$ ), but there was no significant relationship found between DERS-SF and other subscales ( $p>0.05$ ). A positive relationship was found between attachment style of preoccupied and DERS-SF goals ( $r= 0.274$ ) and strategies ( $r= 0.266$ ) ( $p<0.05$ ), but there was no significant relationship found between DERS-SF and other subscales, such as openness, impulsivity, and non-acceptance ( $p>0.05$ ). There was also no statistically significant relationship found between age and DERS-SF total and subscale scores, as well as attachment style scores in the control group (Table 4).

The DERS-SF total score was found to be lowest in the control group. Among the scale subscales of DERS-SF, the

scores for DERS-SF openness, DERS-SF impulsivity, and DERS-SF rejection were highest in the MDB group, while DERS-SF goals and DERS-SF strategies scores were highest in the obsessive-compulsive disorder (OCD) group. Within the subscales of RSQ, the fearful attachment style score was highest in anxiety disorders, the dismissive score was highest in the MDD group, and the secure score was highest in the healthy control group, while the preoccupied attachment style score was highest in the OCD group. With the exception of DERS-SF rejection ( $p= 0.071$ ) and preoccupied attachment style ( $p= 0.137$ ), subscale averages were statistically different between the control and patient groups ( $p<0.05$ ). The patient group had higher DERS-SF total and RSQ subscale averages (excluding secure) than the control group, and the secure attachment style score average was higher in the control group compared to the patient group (Table 5).

According to the post-ANOVA Bonferroni test, the DERS-SF openness score was higher in the MDD and anxiety disorder groups compared to the control group ( $p<0.05$ ), while it did not differ significantly from the ADHD and OCD group averages ( $p>0.05$ ). There was no statistically significant difference in the DERS-SF openness score be-

**Table 4.** Correlation between DERS-SF total and sub-dimension scores and Attachment styles scores in the Control Group

	Age	DERS-SF clarity	DERS-SF goals	DERS-SF impulse	DERS-SF strategies	DERS-SF non-acceptance	DERS-SF total	Fearful	Dismissive	Secure
DERS-SF clarity	-0,101	1								
DERS-SF goals	-0,027	0,574**	1							
DERS-SF impulse	-0,010	0,521**	0,764**	1						
DERS-SF strategies	-0,152	0,569**	0,728**	0,730**	1					
DERS-SF non-acceptance	-0,015	0,368**	0,534**	0,474**	0,653**	1				
DERS-SF total	-0,080	0,686**	0,879**	0,860**	0,924**	0,735**	1			
Fearful	-0,083	0,184	0,105	0,226	0,269*	0,178	0,239	1		
Dismissive	0,021	0,063	-0,117	0,095	0,093	0,111	0,059	0,509**	1	
Secure	0,112	0,097	-0,181	-0,191	-0,318*	-0,154	-0,221	-0,091	-0,116	1
Preoccupied	-0,100	0,127	0,274*	0,091	0,266*	0,166	0,235	-0,124	-0,268*	-0,004

\*\*Correlation is significant at the 0,01 level (2-tailed), \*Correlation is significant at the 0,05 level (2-tailed),  
 DERS-SF: Difficulties in Emotion Regulation Scale-Short Form (DERS-SF)

**Table 5.** DERS-SF and Attachment styles sub-dimension averages and standard deviations according to psychiatric disorder diagnosis groups and control group

	Diagnostic Group					P
	Major depressive disorder Mean	Anxiety disorders Mean	Attention deficit and hyperactivity disorder Mean	Obsessive-compulsive disorder Mean	Control Mean	
DERS-SF clarity	7,0	6,1	5,6	5,5	4,4	<0,001
DERS-SF goals	12,5	12,8	11,7	13,3	8,6	<0,001
DERS-SF impulse	9,2	7,3	7,1	9,0	6,6	0,042
DERS-SF strategies	16,1	16,3	14,2	17,0	10,4	<0,001
DERS-SF non-acceptance	8,3	7,7	7,1	7,3	6,1	0,073
DERS-SF total	53,2	50,1	45,7	52,0	36,1	<0,001
Fearful	18,1	18,4	17,1	17,5	14,2	0,003
Dismissive	24,5	20,4	23,1	21,5	19,7	0,029
Secure	18,3	18,8	18,0	12,3	20,8	0,013
Preoccupied	16,6	16,4	14,5	18,5	14,4	0,137

DERS-SF: Difficulties in Emotion Regulation Scale-Short Form (DERS-SF)

tween the MDD group and the anxiety disorder, ADHD, and OCD group averages. The DERS-SF openness score of the ADHD and OCD patients did not differ significantly from the control group average ( $p>0.05$ ).

### DISCUSSION

In this study, attachment styles and emotion regulation difficulties of adolescents with psychiatric disorders were compared with those of healthy adolescents, and how these processes were affected by psychiatric disorders was examined. According to the results of the study, emotion regulation difficulties and preoccupied attachment style were found to be significantly higher in girls with psychiatric disorders, while no significant relationship was found between emotion regulation difficulties and attachment styles in the control group. It was found that securely attached adolescents experienced fewer emotion regulation difficulties. In the control group without psychiatric disorders, secure attachment scores were higher than those in the patient group and were statistically significant. It was concluded that the control group experienced less emotion regulation difficulties than the patient group, and the group with the highest emotion regulation difficulties in the patient group was the one with major depressive disorders. DERS-SF openness average score was found to be significantly higher in MDD and anxiety disorder groups compared to the control group.

Overall, the findings suggest that psychiatric disorders are associated with attachment styles and emotion regulation difficulties in adolescents. The study highlights the importance of considering attachment styles and emotion regulation in the assessment and treatment of psychiatric disorders in adolescents.

Emotion regulation is influenced by external factors such as temperament and gender<sup>12</sup>. In our study, female adolescents with psychiatric disorders exhibited high levels of emotion regulation difficulties and preoccupied attachment styles. Similarly, studies have shown that women

are more emotional than men, tend to ruminate more on events they experience, and experience more difficulties in regulating emotions, which leads to a greater tendency to display depressive symptoms<sup>13</sup>. The distribution of psychiatric disorders, with the highest rate being major depressive disorders (42.9%) and a significant proportion of female patients in the patient group compared to the control group, may have influenced our results. In our study, preoccupied attachment styles were significantly higher in female adolescents with psychiatric disorders. In the control group, there was no difference between genders, but the high level of preoccupied attachment in female adolescents with psychiatric disorders suggests that the presence of a psychiatric diagnosis may have a greater impact on attachment. In a study on university students with and without depression, individuals with preoccupied and fearful attachment styles were found to have negative self-perceptions and more severe depressive symptoms<sup>14</sup>. Similarly, in our study, there was a female dominance in the patient group and a dominance of major depressive disorders in the psychiatric disorder groups. We believe that both factors may have influenced our results. Indeed, studies have shown that while major depressive disorders are equally prevalent in boys and girls during childhood, their incidence increases during adolescence and becomes more dominant in females during this period. The high proportion of females in our patient group and the dominance of major depressive disorders associated with this may have influenced our results<sup>15,16</sup>. It is widely accepted that emotion regulation strategies develop in early life as part of the developmental process between children and caregivers<sup>17</sup>. Therefore, attachment is considered the most powerful environmental factor influencing the use of emotion regulation strategies. Secure attachment is associated with emotion regulation strategies that facilitate coping with stress, establishing close relationships, and promoting interpersonal harmony. On the other hand, insecure attachment is associated with emotion regulation strategies that disrupt coping, such as denial or inability to express emotions, or inability to act purposefully in negative situa-

tions<sup>12,18</sup>. Similarly, in our study, we found that individuals with secure attachment experienced fewer emotion regulation difficulties.

In a study conducted in our country, insecure attachment has been shown to be associated with not accepting emotional responses, inability to perform goal-directed behaviors in the face of negative emotions, not being able to recognize negative emotions, and not having sufficient access to emotion regulation strategies in the face of negative emotions<sup>19</sup>. While insecure attachment style has been considered a determinant of psychopathology in later years, secure attachment has been associated with healthy processes<sup>4</sup>. In this study, consistent with the literature, the secure attachment style was significantly higher in the group without psychiatric illness. However, there are also those who argue that when evaluating attachment styles, childhood and adulthood should be separately considered, as secure attachment in childhood can be disrupted by negative life events and mood disorders later on<sup>1</sup>. Perhaps the fact that a large majority of those with psychiatric disorders in our study were diagnosed with MDD has influenced the results.

Emotion dysregulation has been associated with conditions such as anxiety, depression, borderline personality disorder, and substance abuse<sup>6</sup>. Similarly, we found that individuals with psychiatric disorders experienced more difficulties with emotion regulation, with the highest rates observed in the MDD group. Studies have shown that individuals with depression display reduced responses to positive stimuli as well as increased responses to negative stimuli. Maladaptive emotion regulation strategies can prolong the duration and intensify the severity of depressive mood<sup>20,21</sup>. In our study, the MDD group also had the highest scores in both the total score and sub-dimensions of the DERS-SF- Korean version, specifically in the subscales of DERS-SF clarity, DERS-SF impulsivity, and DERS-SF non-acceptance. Campbell-Sills et al. have also shown that individuals who suppress or avoid emotions

experience more negative affect, particularly in those with mood and anxiety disorders<sup>22</sup>. In this study, the DERS-SF goals subscale, which represents the ability to behave in a goal-directed manner, and the DERS-SF strategies subscale, which represents the ability to use appropriate emotion regulation strategies in various situations, were found to be the highest in OCD. Individuals with OCD feel compelled to perform compulsions to reduce anxiety-provoking stimuli, which are in fact maladaptive emotion regulation strategies that interfere with goal-directed behavior<sup>23</sup>. Therefore, it is not surprising that these sub-dimensions were found to be high in OCD.

The highest scoring group in terms of fearful attachment style in our study was anxiety disorders. Individuals with this attachment style do not consider themselves worthy of love and have a belief that others are rejecting of them. Therefore, they try to reduce their anxieties by trying to stay close to their attachment figures in stressful and pressure situations. Studies conducted in line with our findings have found that fearful attachment style is dominant in anxiety disorders, especially in those experiencing test anxiety<sup>24</sup>. In a study conducted in our country, the fearful attachment style scores of women were found to be statistically higher than those of men<sup>25</sup>. The dominance of female gender in the case group may have affected our results. Those with dismissive attachment style describe themselves as deserving and valuable, while having negative evaluations about others<sup>24</sup>. In our study, the group with the highest score of dismissive attachment style was MDD. Those who attach dismissively try to cope with their emotions by avoiding closeness, as they are unable to regulate their emotions properly in negative situations<sup>26</sup>. Therefore, we think that difficulties in emotion regulation may be associated with MDD. This situation is consistent with our results. The group with the most emotion regulation difficulties was MDD. It has been shown in the literature that difficulties in emotion regulation are very common in major depression. This is because the characteristic feature of major depression is the continuation of negative affect and

a significant decrease in positive affect. Suppression and rumination, which are maladaptive emotion regulation strategies, are frequently used in depression<sup>27</sup>. In a study that examined 246 adolescents in early adolescence in terms of depressive symptoms and difficulties in emotion regulation, it was found that both difficulties in emotion regulation and limitations in the use of emotion regulation strategies were associated with an increase in depressive symptoms<sup>28</sup>. The most dominant group with an attachment style of preoccupied was OCD. One of the important metacognitive behaviors of OCD is seeking approval. This behavior is a coping mechanism aimed at reducing an individual's perception of danger and anxiety and plays an active role in maintaining OCD symptoms<sup>29</sup>. Individuals who are constantly seeking approval are thought to be close to having a preoccupied attachment style<sup>30</sup>. This situation may arise from individuals with a preoccupied attachment style considering themselves worthless, evaluating others positively, and trying to gain the approval and acceptance of others as a result<sup>8</sup>.

We found that the average level of openness in DERS-SF was significantly higher in both MDD and anxiety disorders compared to the control group. It has been shown that as the level of openness, which expresses the failure to understand emotional reactions or experienced emotions, increases, anxiety also increases and anxiety disorders make it difficult to recognize emotions<sup>31</sup>. Similarly, it has been shown that individuals with depression often have difficulty accepting and tolerating their negative emotions, recognizing and describing their emotions, and supporting themselves in a compassionate way<sup>32</sup>.

The small sample size of the study, the fact that it was a cross-sectional study rather than a longitudinal study, and the limited diversity of psychiatric diagnoses limit the generalizability of the study. Another limitation is the inability to ensure homogeneity between the case and control groups in terms of gender.

This study is important in terms of demonstrating the impact of developing secure attachment and effective emotion regulation strategies on protective mental health. Since secure attachment in infancy and early childhood is considered a critical factor that predicts psychiatric pathologies in later periods, identifying the dynamics that create a secure attachment environment can help children develop positive mental health and effective emotion regulation strategies in the future. In this regard, awareness can be raised about healthy parent-child relationships to enable parents or prospective parents to establish secure attachment with their children.

#### **Declarations**

#### **Funding**

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

#### **Declaration of Competing Interest**

The authors declare that they have no conflicts of interest.

#### **Ethical Approval**

**Approval for the study was obtained from the Yozgat Bozok Medical Faculty Clinical Research Ethics Committee (2017-KAEK-1892021.08.25-08).**

#### **Authorship Contributions**

Concept: DYM, MK; Design: DYM; Data Collection: DYM; Analysis and/or Interpretation: MK; Literature Review: DYM, MK; Writing Manuscript: DYM, MK; Critical Review: DYM, MK.

## References

1. Thompson RA. Attachment theory and research. In *Child and Adolescent Psychiatry*, Ed M Lewis (3rd Ed). Philadelphia; Lippincott Williams Wilkins 2002:164-72.
2. Collins NL, Laursen W. Adolescents' relationships with parents. *J Lang Soc Psychol* 2003;22:58-65.
3. Hamarta, E. Attachment theory. *Anadolu University Journal of Faculty of Education* 2004;14 (1):53-66.
4. Nakash-Eisikovits O, Dutra L, Westen D. Relationship between attachment patterns and personality pathology in adolescents. *J Am Acad Child Adolesc Psychiatry* 2002;41:1111-23.
5. Gross JJ. Emotion Regulation. Lewis M, Haviland-Jones JM, and Barrett LF. (Ed). *Handbook of Emotions*. New York; Guilford Press 2008.
6. Mikulincer M, Shaver PR, & Pereg D. Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motivation and Emotion* 2003; 27(2):77-102.
7. Mikulincer M, & Shaver PR. An attachment perspective on psychopathology. *World Psychiatry* 2012;11(1):11-15.
8. Griffin DW, & Bartholomew K. Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology* 1994;67:430-45.
9. Sümer N ve Güngör D. Yetişkin bağlanma stilleri ölçeklerinin Türk örneklemini üzerinde psikometrik değerlendirmesi ve kültürlerarası karşılaştırma. *Türk Psikoloji Dergisi* 1999;14(43):35-62.
10. Bjureberg J, Ljótsson B, Tull MT, Hedman E, Sahlin H, Lundh LG et al. Development and validation of a brief version of the difficulties in emotion regulation scale: the DERS-16. *Journal of Psychopathology and Behavioral Assessment* 2016; 38: 284-96.
11. Yiğit I & Yiğit MG. Psychometric properties of Turkish version of difficulties in emotion regulation scale-brief form (DERS-16). *Current Psychology* 2019; 38: 1503-11.
12. Sheese BE, Rothbart MK. Temperament and emotion regulation. *Handbook of emotion regulation*. Editor Gross JJ. *Handbook of emotion regulation*. New York; The Guilford Press 2006:331-50.
13. Thayer JF, Rossy LA, Ruiz-Padial E, and Johnsen BH. Gender Differences in the Relationship Between Emotional Regulation and Depressive Symptoms. *Cognitive Therapy and Research* 2003;27(3):349-64.
14. Carnelley KB, Otway LJ, & Rowe AC. The Effects of Attachment Priming on Depressed and Anxious Mood. *Clinical Psychological Science* 2015;4(3):433-50.
15. Birmaher B, Brent D, Issues AW, Go Q. Practice parameter for the assessment and treatment of children and adolescents with depressive disorders. *J Am Acad Child Adolesc Psychiatry* 2007;46:1503-26.
16. Lewinsohn PM, Rohde P, Seeley JR, Klein DN, Gotlib IH. Natural course of adolescent major depressive disorder in a community sample: predictors of recurrence in young adults. *Am J Psychiatry* 2000;7:1584-91.
17. Shaver PR, Mikulincer M. Adult attachment strategies and the regulation of emotion. Editor Gross JJ. *Handbook of emotion regulation*. New York; The Guilford Press 2006:446-65.
18. Southam-Gerow MA, & Kendall PC. Emotion regulation and understanding: Implications for child psychopathology and therapy. *Clinical psychology review* 2002;22(2),189-222.
19. Demirpençe D, Guliyev EL, Akkin Gürbüz HG. The effect of affective temperament traits on emotion regulation difficulties. *Klinik Psikiyatri* 2021;24:350-8.
20. Rottenberg J. Mood and emotion in major depression. *Curr Dir Psychol Sci* 2005;14:167-70.
21. Joermann J, Gotlib IH. Emotion regulation in depression: relation to cognitive inhibition. *Cogn Emot* 2010;24:281-98.
22. Campbell-Sills L, Barlow DH, Brown T A, Hofmann SG. Effects of suppression and acceptance on emotional responses of individuals with anxiety and mood disorders. *Behav Res Ther* 2006;44:1251-63.
23. Paul S, Simon. Endrass T & Kathmann N. Altered emotion regulation in obsessive-compulsive disorder as evidenced by the late positive potential. *Psychological Medicine* 2016;46(01):137-47.
24. Çalışır M. Yetişkin Bağlanma Kuramı ve Duygulanım Düzenleme Stratejilerinin Depresyonla İlişkisi. *Psikiyatride Güncel Yaklaşımlar* 2009;1(3):240-55.
25. Karaşar B. Öğretmen adaylarının bağlanma stilleri ve sosyal kaygı düzeyleri arasındaki ilişki. *Amasya Üniversitesi Eğitim Fakültesi Dergisi* 2014;3(1):27-49.
26. Lopez FG, Gover MR, Leskela J, Sauer EM, Schirmer L, & Wyssmann J. Attachment styles, shame, guilt, and collaborative problem-solving orientations. *Personal Relationships* 1997;4(2):187-99.
27. Nolen-Hoeksema S, Wisco BE, Lyubormirsky S. Rethinking rumination. *Perspectives on Psychological Science* 2008;3:400-24.
28. Gonçalves SF, Chaplin TM, Turpyn CC, Niehaus CE, Curby TW, Sinha R, et al. Difficulties in emotion regulation predict depressive symptom trajectory from early to middle adolescence. *Child Psychiatry & Human Development* 2019;50:618-30.
29. Rachman S. A cognitive theory of compulsive checking. *Behavior Research and Therapy* 2002;40:624-39.
30. Soysal AŞ, Bodur Ş, İleri E, et & Şenol S. "Bebeklik dönemindeki bağlanma sürecine genel bir bakış". *Klinik Psikiyatri* 2005;8(2):88-99.
31. Cisler JM, Olatunji BO, Feldner MT, and Forsyth JP. "Emotion Regulation and the Anxiety Disorders: An Integrative Review". *Journal Of Psychopathology And Behavioral Assessment*. 2010;32(1):68-82.
32. Berking M and Whitley B. *Affect regulation training: A practitioners' manual*. New York; Springer 2014.