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# Attachment Styles and Psychopathology among Adolescent Children of Parents with Bipolar Disorder

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**Background:** The aim of this study was to compare attachment styles and psychopathology in adolescent children of parents with bipolar disorder (BD) with a healthy control group.

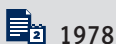
**Material/Methods:** We studied 25 adolescents who had at least 1 parent with BD (BD group) and 28 adolescents who had no parents with BD (control group). The adolescent participants were between the ages of 12 and 17 years. We used the Adolescent Relationship Scales Questionnaire (A-RSQ) for the adolescents in the BD vs. control groups, and we used the Schedule for Affective Disorders and Schizophrenia for School-age Children – present and lifetime version (K-SADS-PL). We used the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I), Clinician Version for each parent of adolescents in the BD and control groups to rule out psychopathologies.

**Results:** Attachment styles of participants were assessed according to A-RSQ, dismissing attachment style scores of adolescents in BD group were found significantly higher compared to the healthy control group ( $p < 0.05$ ). As a result of the assessments, 12 adolescents (48%) out of 25 in the BD group and 5 adolescents (18%) out of 28 in the control group were given DSM-IV Axis I diagnosis, which is a statistically significant result ( $p < 0.05$ ). However, when psychiatric diagnoses were assessed separately, the difference was not statistically significant.

**Conclusions:** We found that the adolescent children of parents with BD have increased risk of developing mental illnesses, and that these adolescents adopt dismissing attachment styles.

**MeSH Keywords:** **Adolescent • Bipolar Disorder • Parents • Psychopathology**

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## Background

Attachment is defined as an affectional tie formed between children and their care-givers, characterized by behaviors of children such as seeking proximity to and presence of care-givers [1]. Attachment styles that are formed in the infantile period show a variable and non-rigid feature throughout life. The high burden of events and mood disorders may lead to the distortion of secure attachment adopted in childhood [2]. Personality traits of the children, familial system factors, and sociocultural factors are the key factors that impact the attachment [3].

Attachment theory was first defined by Bowlby and developed by Ainsworth et al. [4]. Ainsworth evaluated the reactions and secure and insecure attachment patterns of children using the strange situation test in which, in a laboratory environment, the children were separated from their mothers and then were brought together again. She divided these reactions into secure, anxious/ambivalent, and avoidant types. In the first statement of the theory, these attachment styles were put forward as attachment impulses that were formed in infants against consistent-inconsistent, continuous-discontinuous, and unresponsive maternal attitudes. A third insecure attachment style was later added called disorganized/disoriented attachment, which may be identified with uncertain direction in terms of inconsistency in anxiety control. Bartholomew and Horowitz started from the internal working model of a person's own self and others, and set forth secure, obsessive, avoidant, and fearful attachment styles [5].

In recent years, it has been observed that the majority of studies on mother-child relationship concern attachment. The main reason for this is that research on the parent-child relationship has become increasingly important for both generations because attachment is a reciprocal process. Many researchers argue that the continuity of the mother-child relationship is the basis of later experiences [6]. It is reported that the most important people in a person's life are one's parents and that a healthy relationship with them is determinative in young and adult mental health [7]. Starting from Bowlby's studies, insecure attachment style has been considered as the determinant of psychopathology in later stages of life, whereas secure attachment has been linked to healthy processes [8].

Bipolar disorder (BD) is a common disease that associated with high morbidity, mortality, and heritability [9]. BD in parents might negatively affect their children, especially in adolescence, which is a crucial transition and change period in which attachment undergoes change. In this period, the BD of a parent may lead to development of insecure attachment styles in their adolescent children [10]. Additionally, BD patients commonly experience alcohol and substance abuse, divorce, self-destructive behaviors, hospital admission and treatment costs,

criminal activity, and accidental injury during attacks [11,12]. Therefore, the children of parents with BD are at high risk due to inheritance and psychosocial impacts caused by living with parents who have severe and chronic BD [13].

This study aimed to investigate and compare psychopathology and attachment styles between the children of parents who solely have BD as a mental disease and their healthy peers.

## Material and Methods

### Participants

The BD group consisted of 25 children of 25 parents who are being followed in the Psychiatry Clinic of Akdeniz University (17 female, 8 male) due to bipolar I disorder. The control group consisted of 28 children and their parents who do not have any mental illness. The research was conducted between January and September 2011. The recruitment criteria for parents in the BD group were: BD diagnosis and being followed at the Psychiatry Clinic of Akdeniz University, absence of mental disorders synchronous with BD, having a child between the ages of 12 and 17 years, and interview of at least 1 parent. Parents who met these criteria and who had clinically confirmed BD (using the SCID) were reached by phone and were informed about the aim and method of the study. Adolescent children of parents who were in the euthymic phase of BD were recruited to the study. This study was approved by the Ethics Committee of Akdeniz University Medical Faculty.

### Procedure

Sociodemographic and clinical data forms were completed by participants. Then, structured psychiatric interviews were conducted (K-SADS-PL). To assess the attachment styles of adolescents, we used the Adolescent Relationship Scales Questionnaire (A-RSQ). The Disorders (SCID-I) Clinician Version was used in the healthy parents in the BD group and both parents in the control group to rule out psychopathology.

### Measures

#### *Schedule for Affective Disorders and Schizophrenia for School-age Children – Present and Lifetime version (K-SADS-PL)*

The original K-SADS-PL was developed by Kaufman et al. [14]. It was translated into Turkish by Gokler et al. in 2004 [15]. The K-SADS-PL is administered by interviewing parents and child separately, producing summary ratings that include all sources of information. Presence of common psychopathologies in children and adolescents are investigated.

**Table 1.** Data related to some sociodemographic variables.

Variables	BD (n=25)	Non BD (n=28)	p value
Age (years)	14.20±1.73	14.21±1.72	0.97
Sex (M/F)	10/15	13/15	0.63
Education duration (years)	7.8±2.2	8.5±1.4	0.29
Mother's age (years)	39.2±5	41.3±4.4	0.059
Mother's education duration (years)	8±4.2	10.3±4.3	0.12
Father's age (years)	42.8±5.3	44.4±4.4	0.14
Father's education duration (years)	9.9±3.9	10.1±4.6	0.54
Number of siblings	4.7±2.5	4.7±2.7	0.96

#### *Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I), Clinician Version*

This was developed by Spitzer, Gibbon, and Williams in 1987 [16]. Turkish validity and reliability studies were made by Ozgurulukcugil et al. in 1999 [17].

#### *Adolescent Relationship Scales Questionnaire (A-RSQ)*

This was developed by Bartholomew and Horowitz [5]. Turkish validity and reliability studies were made by Dumer and Gungor [18]. It is used to assess attachment styles of adolescents.

#### **Statistical analysis**

The statistical analysis was performed using SPSS 16 software package. The chi-square test was used to evaluate the presence of a difference between the groups in terms of gender and psychopathology. The Mann-Whitney test was used to compare non-normally distributed categorical variables. Group differences on the attachment scores were assessed using Mann-Whitney tests. A p value below 0.05 was considered statistically significant.

## **Results**

The BD group (n=25) consisted of 15 males and 10 females with mean age 14.20±1.73 years. The control group (n=28) consisted of 15 males and 13 females with mean age 14.21±1.72 years. There were no significant differences between groups in age, gender, or year of school. In the BD group, 17 mothers and 8 fathers had BD diagnosis. There was no difference between groups in terms of parental age, education level, or job status. Sociodemographic data are presented in Table 1.

There were 48% of adolescents (n=12) in the BD group and 17.9% of adolescents (n=5) in the control group who were known to be diagnosed with at least 1 psychiatric disorder. The incidence of psychiatric disorders was significantly higher in the BD group compared to the control group. (p=0.019). The most common psychiatric disorders in the BD group were depression (16%) and anxiety disorder (12%). The incidence of multiple psychiatric disorders (20%, n=5) in the BD group was higher than in the control group (n=0) (p=0.013). Psychiatric disorders and their distributions are listed in Table 2.

Dismissing attachment scores of the children of parents with BD were significantly higher than in healthy peers (p=0.002). No difference was present in terms of attachment styles. A-RSQ scores of adolescents are given in Table 3. Presence of BD in either mother or father did not show a significant impact on attachment styles. A-RSQ attachment scores of adolescents with or without a psychiatric diagnosis did not differ between groups.

## **Discussion**

In this study, psychopathology incidence was higher and dismissing attachment style was more common in the BD group compared to the control group. We found no association between adolescent psychopathology and attachment style.

According to Bowlby [19], most basic attachment behaviors usually developed in the first 9 months of life, and complete formation of attachment process takes 2 to 3 years. The supporters of attachment theory believe that attachment styles change only slightly after the attachment styles are determined either as secure or insecure in infancy [20]. The first 2 years of life (which is the most crucial time for attachment) might be negatively affected by psychiatric illness of the mother [21]. It has been reported that post-partum, BD relapse incidence is

**Table 2.** Psychiatric diseases and disease distributions in adolescents.

Diagnoses	BD group n (%)	Control group n (%)	P value
Depression	4 (16)	1 (3.6)	0.122
Anxiety disorder	3 (12)	3 (10.7)	0.883
Bipolar disorder	1 (4)	0	0.285
Attention deficit hyperactive disorder	2 (8)	1 (3.6)	0.486
Conduct disorder	2 (8)	0	0.127
Tic disorder	1 (4)	0	0.285
Substance abuse	2 (8)	0	0.127
Enuresis nocturna	2 (8)	0	0.127
At least one psychiatric diagnosis	12 (48)	5 (17.9)	<b>0.019</b>

**Table 3.** Adolescent Relationship Scales Questionnaire scores of BD and control groups.

Variables	BD group (n=25)	Control group (n=28)	P value
Secure attachment	3.92±0.89	4.07±1.32	0.367
Fearful attachment	3.15±1.43	3.63±1.32	0.181
Preoccupied attachment	3.69±1.11	3.26±1.21	0.221
Dismissing attachment	4.26±1.09	3.35±0.09	<b>0.002</b>

high [22]. Due to the recurrent disease periods and disrupted psychosocial functioning resulting from residual signs (apart from disease) in BD patients, some problems occur in parental child protection and care, as well as the parent-children relationship [23]. During BD attacks, parents might neglect their children. Children might develop distorted perceptions about themselves or their parents when they do not receive plausible and sufficient explanations for this neglect. They might also develop these perceptions due to their current situation or age (even though they are given plausible and sufficient explanations). Parents in euthymic mood might develop feelings of guilt, incompetence, and hypersensitivity against their children. This situation may negatively affect the child-parent relationship, and children may thus develop insecure attachment styles.

Any psychopathology such as schizophrenia, bipolar disorder, obsessive-compulsive disorder, or substance abuse may adversely affect the mutual regulation capability of parents [24]. A mother's depression interferes with mutual emotional regulation and causes permanent bio-behavioral changes in the newborn [25]. It is reported that parents with psychopathology generally use punishing parental strategies, which are connected to psychopathologies, especially conduct disorder in children [26]. In addition, it was demonstrated that parents with psychopathology show maladaptive parental behaviors that

mediate the development of psychopathology in children, especially in the adolescent period [27]. Many studies have focused on the role of parental perception in the development of psychopathology in children, and it has been reported that parents of adolescents with eating disorders showed lower emotional participation and sensitivity and higher controlling and rejecting behavior [28–30].

Our study revealed that psychopathology rates were significantly higher in the children of parents with BD. Similarly, previous studies detected increased psychiatric diagnosis rates in children of parents with BD [31]. There were 16% of BD group participants who received a depression diagnosis, which is markedly higher than the 3.6% in the control group. Studies conducted with adult BD patients reported that 20–40% of patients with bipolar disorder had their first BD attack in childhood and that the first attack was depression [32]. Children who show genetic predisposition to BD and receive a depression diagnosis are likely to develop BD.

Conduct disorder is another important psychiatric disease that is significantly higher in the children of parents with BD compared to the normal population [33]. Various studies suggest that the incidence of attention deficit hyperactive disorder (ADHD) in the children of parents with BD is higher [34], and that there is a relationship between ADHD and BD and

the emergence of ADHD as a precursor of BD, in the children with family history of BD [35]. Additionally, some studies have reported the coexistence of ADHD and BD in children and adolescents [36].

In the present study, the frequency of comorbid psychiatric disorders was found to be significantly higher in the children of parents with BD than in the healthy control group. Many studies have similarly detected increased rates of 2 or more psychiatric diagnoses, particularly ADHD, depression, and anxiety disorders [37]. These results demonstrate that the children of parents with BD are at higher risk of having multiple psychiatric diagnoses and that these children should be carefully screened for other psychiatric diseases when making a psychiatric diagnosis.

In our study, the relationship between mental diseases and attachment styles of adolescents were assessed separately for each group; a significant relationship between mental diseases and attachment styles was not detected.

## References:

1. Ainsworth MS: The personal origins of attachment theory. An interview with Mary Salter Ainsworth. Interview by Peter L. Rudnytsky. *Psychoanal Study Child*, 1997; 52: 386–405
2. Klohnen EC, Bera S: Behavioral and experiential patterns of avoidantly and securely attached women across adulthood: a 31-year longitudinal perspective. *J Pers Soc Psychol*, 1998; 74(1): 211–13
3. Kesebir S, Kavzoğlu SÖ, Üstündağ MF: [Attachment and psychopathology.] *Curr Approaches PsychiatryPsikiyatride Guncel Yaklasimlar*, 2011; 3(2): 321–42 [in Turkish]
4. Ainsworth MDS, Blehar MC, Waters E, Wall S: Patterns of attachment: A psychological study of the strange situation. Hillsdale, Lawrence Erlbaum; 1978
5. Bartholomew K, Horowitz LM: Attachment styles among young adults: a test of a four-category model. *J Pers Soc Psychol*, 1991; 61(2): 226–44
6. Pearson JL, Cowan PA, Cowan CP, Cohn DA: Adult attachment and adult child-older parent relationships. *Am J Orthopsychiatry*, 1993; 63(4): 606–13
7. LeCroy CW: Parent-adolescent intimacy: Impact on adolescent functioning. *Adolescence* [Internet]. 1988 [cited 2015 Feb 25]; Available from: <http://psycnet.apa.org/psycinfo/1988-29253-001>
8. Nakash-Eisikovits O, Dutra L, Westen D: Relationship between attachment patterns and personality pathology in adolescents. *J Am Acad Child Adolesc Psychiatry*, 2002; 41(9): 1111–23
9. Bauer M, Pfennig A: Epidemiology of bipolar disorders. *Epilepsia*, 2005; 46(s4): 8–13
10. Moehler E, Brunner R, Wiebel A et al: Maternal depressive symptoms in the postnatal period are associated with long-term impairment of mother-child bonding. *Arch Womens Ment Health*, 2006; 9(5): 273–78
11. Breslau J, Miller E, Jin R et al: A multinational study of mental disorders, marriage, and divorce. *Acta Psychiatr Scand*, 2011; 124(6): 474–86
12. Hong J, Reed C, Novick D et al: Clinical and economic consequences of medication non-adherence in the treatment of patients with a manic/mixed episode of bipolar disorder: Results from the European Mania in Bipolar Longitudinal Evaluation of Medication (EMBLEM) Study. *Psychiatry Res*, 2011; 190(1): 110–14
13. Maoz H, Goldstein T, Axelson DA et al: Dimensional psychopathology in preschool offspring of parents with bipolar disorder. *J Child Psychol Psychiatry*, 2014; 55(2): 144–53
14. Kaufman J, Birmaher B, Brent D et al: Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime Version (K-SADS-PL): initial reliability and validity data. *J Am Acad Child Adolesc Psychiatry*, 1997; 36(7): 980–88
15. Gökler B, Ünal F, Pehlivan Türk B et al: Reliability and Validity of Schedule for Affective Disorders and Schizophrenia for School Age Children-Present and Lifetime Version-Turkish Version (K-SADS-PL-T). *Turk J Child Adolesc Ment Health*, 2004; 11(3): 109–16
16. Spitzer RL, Williams JBW, Gibbon M: Structured Clinical Interview for DSM-III-R Axis-I Disorders (SCID-I). Washington DC, American Psychiatric Press, Inc., 1987
17. Özkürkçügil A, Aydemir Ö, Yıldız M et al: DSM-IV eksen I bozuklukları için yapılandırılmış klinik görüşmenin Türkçeye uyarlanması ve güvenilirlik çalışması. *İç Ve Tedavi Derg*, 1999; 12(4): 233–36 [in Turkish]
18. Sümer N, Güngör D: Yetişkin bağlanma stilleri ölçeklerinin Türk örneklemi üzerinde psikometrik değerlendirmesi ve kültürlerarası bir karşılaştırma. *Türk Psikol Derg*, 1999; 14(43): 71–106 [in Turkish]
19. Bowlby J: The making and breaking of affectional bonds. I. Aetiology and psychopathology in the light of attachment theory. An expanded version of the Fiftieth Maudsley Lecture, delivered before the Royal College of Psychiatrists, 19 November 1976. *Br J Psychiatry*, 1977; 130(3): 201–10
20. Hamilton CE: Continuity and discontinuity of attachment from infancy through adolescence. *Child Dev*, 2000; 71(3): 690–94
21. Hipwell AE, Goossens FA, Melhuish EC, Kumar R: Severe maternal psychopathology and infant-mother attachment. *Dev Psychopathol*, 2000; 12(02): 157–75
22. Viguera A, Whitfield T, Baldessarini R et al: Risk of recurrence in women with bipolar disorder during pregnancy: prospective study of mood stabilizer discontinuation. *Am J Psychiatry*, 2007; 164(12): 1817–24
23. Hillegers MH, Reichart CG, Wals M et al: Five-year prospective outcome of psychopathology in the adolescent offspring of bipolar parents. *Bipolar Disord*, 2005; 7(4): 344–50
24. Schechter DS, Willheim E: Disturbances of Attachment and Parental Psychopathology in Early Childhood. *Child Adolesc Psychiatr Clin N Am*, 2009; 18(3): 665–86
25. Dawson G, Frey K, Panagiotides H et al: Infants of Depressed Mothers Exhibit Atypical Frontal Brain Activity A Replication and Extension of Previous Findings. *J Child Psychol Psychiatry*, 1997; 38(2): 179–86

26. Vostanis P, Graves A, Meltzer H et al: Relationship between parental psychopathology, parenting strategies and child mental health: Findings from the GB national study. *Soc Psychiatry Psychiatr Epidemiol*, 2006; 41(7): 509–14
27. Johnson JG, Cohen P, Kasen S et al: Association of maladaptive parental behavior with psychiatric disorder among parents and their offspring. *Arch Gen Psychiatry*, 2001; 58(5): 453–60
28. Pilecki MW, Józefik B: Perception of transgenerational family relationships: Comparison of eating-disordered patients and their parents. *Med Sci Monit*, 2013; 19: 1114–24
29. Józefik B, Iniewicz G, Ulasińska R: [Attachment patterns, self-esteem, gender schema in anorexia and bulimia nervosa]. *Psychiatr Pol*, 2009; 44(5): 665–76 [in Polish]
30. Fassino S, Amianto F, Abbate-Daga G: The dynamic relationship of parental personality traits with the personality and psychopathology traits of anorectic and bulimic daughters. *Compr Psychiatry*, 2009; 50(3): 232–39
31. Freed RD, Tompson MC, Otto MW et al: Early risk factors for psychopathology in offspring of parents with bipolar disorder: The role of obstetric complications and maternal comorbid anxiety. *Depress Anxiety*, 2014; 31(7): 583–90
32. Angst J, Azorin J, Bowden CL et al: Prevalence and characteristics of undiagnosed bipolar disorders in patients with a major depressive episode: The bridge study. *Arch Gen Psychiatry*, 2011; 68(8): 791–99
33. Zappitelli MC, Bordin IA, Hatch JP et al: Lifetime psychopathology among the offspring of Bipolar I parents. *Clinics*, 2011; 66(5): 725–30
34. Garcia-Amador M, de la Serna E, Vila M et al: Parents with bipolar disorder: Are disease characteristics good predictors of psychopathology in offspring? *Eur Psychiatry*, 2013; 28(4): 240–46
35. Chang KD, Steiner H, Ketter TA: Psychiatric phenomenology of child and adolescent bipolar offspring. *J Am Acad Child Adolesc Psychiatry*, 2000; 39(4): 453–60
36. Miller S, Chang KD, Ketter TA: Bipolar disorder and attention-deficit/hyperactivity disorder comorbidity in children and adolescents: Evidence-based approach to diagnosis and treatment. *J Clin Psychiatry*, 2013; 74: 628–29
37. DelBello MP, Geller B: Review of studies of child and adolescent offspring of bipolar parents. *Bipolar Disord*, 2001; 3(6): 325–34