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 ruled 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.
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 Ozgurlukcugil 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 know 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 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 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±5.5   | 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    |

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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

| 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)            | 0.019   |

| 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            | 0.002   |

Table 2. Psychiatric diseases and disease distributions in adolescents.

Table 3. Adolescent Relationship Scales Questionnaire scores of BD and control groups.
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 attachments styles of adolescents were assessed separately for each group; a significant relationship between mental diseases and attachment styles was not detected.

Conclusions

We found that adolescent children of parents with BD had increased psychopathology risk and that in these children had more psychopathologies such as depression, ADHD, conduct disorders, and anxiety disorders than the healthy control group. BD in parents negatively impacts the mental health and attachment styles of children, thereby increasing the risk of developing an insecure attachment style.

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