

The Effect of Attention Deficit Hyperactivity Disorder of Parents and Adolescents on Attachment Patterns of the Adolescents Ergenlerde ve Ebeveynlerinde Dikkat Eksikliği Hiperaktivite Bozukluğu Bulunmasının Ergenlerin Bağlanma Örüntüleri Üzerine Etkisi

Salih Gençođlan¹, Mustafa Erkan², Leyla Akgüç³, Hamit Sırrı Keten⁴, Esin Özatalay⁵,
Emine Çıđıl Fettahođlu⁵

¹Yüzüncü Yıl University, Faculty of Medicine, Department of Child and Adolescent Psychiatry

²Şişli Hamidiye Etfal Training and Research Hospital, Department of Child and Adolescent Psychiatry

³Mardin State Hospital, Department of Psychiatry

⁴Kahramanmaraş Sutcu İmam University, Faculty of Medicine, Department of Family Medicine

⁵Akdeniz University, Faculty of Medicine, Department of Child and Adolescent Psychiatry

Abstract

Objectives: The aim of this study was to explore the attachment patterns of adolescents with Attention Deficit Hyperactivity Disorder (ADHD) and the effect of the presence of ADHD in their parents on the attachment patterns of adolescents with ADHD.

Materials and Methods: 30 adolescents diagnosed with ADHD and their parents were included in the research and 30 healthy adolescents and their parents were included in the control group. The participating adolescents were aged 12-17. The adolescents in both the ADHD group and the control group were given sociodemographic data form and the Relationship Scales Questionnaire (RSQ) as well as the Schedule for affective disorders and schizophrenia for school-age children – present and lifetime version (K-SADS-PL) and the Wechsler Intelligence Scale for Children (WISC-R). In order to examine the ADHD symptoms of the parents of the adolescents included in the study, the Wender Utah Rating Scale (WURS) and the Adult Attention Deficit Hyperactivity Disorder Self-report Scale (ASRS) were utilized.

Results: As a result of the research, the mean A-RSQ scores of our subjects revealed no significant difference between the ADHD and the control groups in any attachment type. It was determined that the dismissing attachment pattern scores of those adolescents whose parents had ADHD were significantly high.

Conclusion: The attachment patterns of adolescents with ADHD and healthy adolescents were observed to be similar. Furthermore, we found that those adolescents with ADHD whose parents also had ADHD show dismissing attachment pattern.

Key words: Attention deficit hyperactivity disorder, attachment, adolescence, parent.

Öz

Amaç: Bu çalışmada Dikkat Eksikliği Hiperaktivite Bozukluğu (DEHB) olan ergenlerin bağlanma örüntüleri ve ebeveynlerinde DEHB bulunmasının ergenlerin bağlanma örüntüleri üzerine olan etkilerinin araştırılması amaçlanmıştır.

Materyal ve Metot: Araştırmaya DEHB tanısı olan 30 ergen ve onların ebeveynleri, kontrol grubuna ise 30 sağlıklı ergen ve onların ebeveynleri dahil edildi. Katılan ergenler 12-17 yaş aralığında idi. DEHB ve kontrol grubundaki ergenlere; sosyodemografik veri formu ve İlişki Ölçekleri Anketi (İÖA-E) verilmiş ve K-SADS (Okul çađı çocukları için duygudurum bozuklukları ve şizofreni görüşme çizelgesi – Şimdi ve yaşam boyu versiyonu) ile Wechsler Çocuklar İçin Zeka Ölçeđi (WISC-R) uygulanmıştır. Çalışmaya alınan ergenlerin ebeveynlerinin DEHB belirtilerini sorgulamak amacıyla Wender-Utah Derecelendirme Ölçeđi (WUDÖ) ve Erişkin Dikkat Eksikliği Hiperaktivite Bozukluğu Öz Bildirim Ölçeđi (ASRS) kullanılmıştır.

Bulgular: Araştırma sonucunda deneklerimizin İÖA-E'dan aldıkları skor ortalamalarına bakıldığında tüm bağlanma tipleri bakımından DEHB ve kontrol grupları arasında anlamlı bir fark bulunmamıştır. Ebeveynlerinde DEHB olan ergenlerin kayıtsız bağlanma örüntüsü skorları anlamlı oranda yüksek olduğunu saptanmıştır.

Sonuç: DEHB'li ergenler ile sağlıklı ergenlerin bağlanma örüntülerinin benzer olduğu görülmüştür. Ayrıca ebeveynlerde DEHB bulunan DEHB'li ergenlerin kayıtsız bağlanma örüntüsüne sahip olduğunu ortaya koyulmuştur.

Anahtar kelimeler: Dikkat eksikliği hiperaktivite bozukluğu, bağlanma, ergenlik, ebeveyn

Correspondence / Yazışma Adresi:

Dr. Salih Gençođlan
Yüzüncü Yıl University, Faculty of Medicine,
Department of Child and Adolescent Psychiatry, Van / Turkey
e-mail: sgencoglan@gmail.com
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Introduction

Attachment is the first bond established between a baby and its mother or a constant caregiver which develops the basic sense of security.¹ The caregiver's acceptance of the child's needs and his/her sensitivity towards the child's signals determine a child's level of secure or insecure attachment. According to Bowlby, repetitive behavior patterns of caregivers shape the mental schemes of children in terms of attachment and determine the development of models of self and others referred to as internal working models.²

Attention Deficit Hyperactivity Disorder (ADHD) is the most common childhood disorder.³ Self-regulation deficits including problems related to impulse control, self-calming, assertiveness, persistence, perseverance and inhibition are the most significant features of ADHD.⁴ Non-adaptive behavior of children with ADHD and difficulties of caregiving may prevent the development of secure attachments between parents and children.⁵ The probable reasons are that the difficult temperament of children with ADHD affects the quality of attachment relationship between parents and children and the parents of children with ADHD may exhibit a more authoritative attitude.⁶ It was demonstrated that, in consequence of extreme limitation of their autonomies, children with ADHD perceived their parents as punishing, interfering, ignoring thereby developing avoidant attachment.⁷ Furthermore, the examination of interaction between children with ADHD and their parents revealed deficiencies similar to parent-child relationships observed in insecure attachment pattern.⁸ It was determined that in insecure attachment relationships, parent's response to and involvement in the baby's signals were low and also that the parent exhibited an extremely interfering and negativist attitude toward his/her child.⁹

In this study, the aim was to determine the attachment patterns of adolescents with ADHD and compare them with those of the healthy controls. In addition, it was aimed to investigate the effects of the presence of ADHD in parents on attachment patterns of adolescents.

Materials and Methods

Participants

30 children aged between 12-17 diagnosed with ADHD and followed in the Department of Child and Adolescent Psychiatry and Mental Health Outpatient Clinic of Faculty of Medicine, Akdeniz University and their parents who volunteered to participate in the study were included in this study. IQ scores below 80 in WICS-R test, presence of a psychopathology except ADHD confirmed in a semi-structured interview and chronic medical disease history were determined as exclusion criteria.

The control group consisted of 30 adolescents aged between 12-17 and their parents that volunteered to participate in the study, who never referred to a child psychiatry outpatient clinic before for any reason, had no known history of important medical disorder nor deficiency in mental development and who were matched with the patient group in terms of age and gender. Informed consent was taken from all adolescents and parents. All parents participated in the study. Approval for the study was granted from the Ethical Committee of the Faculty of Medicine, Akdeniz University.

Procedure

Sociodemographic data form and the Adolescent Relationship Scales Questionnaire (A-RSQ) were given to the adolescents in both the ADHD and the control groups and the Schedule for Affective Disorders and Schizophrenia for School-age Children - Present and Lifetime Version (K-SADS-PL) was applied. The Wechsler Intelligence Scale for Children (WISC-R) was applied by a clinical psychologist and children with a total IQ score below 80 were not included in the study. The Adult Attention Deficit Hyperactivity Disorder Self-report Scale (ASRS) and the Wender Utah Rating Scale (WURS) were given in order to determine the ADHD symptom levels of the parents. Also, ADHD in parents was diagnosed through a semi-structured clinical interview by an adult psychiatrist.

Measures

Schedule for affective disorders and schizophrenia for school-age children - Present and lifetime version (K-SADS-PL)

The original version (K-SADS-PL) was developed by Dr. Joan Kaufman et al. in 1997.¹⁰ It was adapted to Turkish by Gökler et al. in 2004.¹¹ K-SADS-PL is applied through interviews with parents and children and the final evaluation is performed in the light of the information gathered from all sources. The presence of psychopathologies commonly observed in children and adolescents are investigated.

Wechsler Intelligence Scale for Children (WISC-R)

It was developed in 1949 by Wechsler and reviewed in 1974.¹² The standardization of WISC-R on Turkish children was performed by Savaşır and Şahin in 1995.¹³

Adolescent Relationship Scales Questionnaire (A-RSQ)

This scale developed by Bartholomew and Horowitz.¹⁴ The Turkish validity and reliability study of which was performed by Sümer and Güngör, was used in this study in order to assess the attachment patterns of adolescents.¹⁵

Attention Deficit Hyperactivity Disorder Self-report Scale (ASRS)

It is one of the scales developed by the World Health Organization (WHO) in order to screen ADHD.¹⁶ The Turkish validity and reliability study was performed by Doğan et al. in 2009.¹⁷ The cut-off point of ASRS for the total score was calculated as 37.

Wender Utah Rating Scale (WURS)

WURS was developed with the intention to make a retrospective examination of ADHD symptoms and help diagnose ADHD in adults.¹⁸ The validity and reliability study of the Turkish adaptation was performed by Öncü et al. and cut-off point was determined as 36.¹⁹

Statistical analysis

Statistical evaluation was performed using SPSS version 16.0 software. Student T test was used for the specific variants determined to have shown normal distribution in independent groups, whereas Mann Whitney U test was used for categorical variants as well as those variants that did not indicate normal distribution. The situations in which the P value was below 0.05 were evaluated as statistically significant.

Results

In the ADHD group, there were a total of 30 adolescents with 19 males and 11 females whereas the control group included a total of 30 adolescents with 20 males and 10 females. The mean age of the adolescents in the ADHD group was determined as 13.46 ± 1.71 while in the control group it was 14.26 ± 1.70 . There was no difference with regard to age, gender and year of education between the groups. There was no difference between the groups with regard to the ages of the parents, their educational level and work status.

Table 1. Data related to some sociodemographic variables

Sociodemographic variables	ADHD (n=30)	Control (n=30)	P
Age (years)	13.46 ± 1.71	14.26 ± 1.70	0.081
Sex (M/F)	19 /11	20/10	0.788
Education duration (years)	7.53 ± 1.59	7.90 ± 1.42	0.240
Mother's age (years)	40.16 ± 6.04	41.56 ± 4.05	0.081
Mother's education duration (years)	10.13 ± 4.26	9.80 ± 3.77	0.578
Father's age (years)	44.03 ± 8.25	44.83 ± 4.46	0.131
Father's education duration (years)	10.93 ± 4.20	11.13 ± 3.59	0.890
Number of siblings	4.6 ± 2.5	4.6 ± 2.7	0.960

The diagnosis of the parents who achieved scores above the cut-off points of ASRS and WURS was confirmed through a semi-structured clinical interview performed by an adult psychiatrist. ADHD was determined in 6.7% (n=2) of the mothers and 16.7% (n=5) of the fathers of the adolescents with ADHD. In the control group, ADHD was determined in only 2 (6.7%) fathers. The mean ASRS and WURS scores of the parents in the ADHD group were found to be significantly higher than those in the control group (Table 1).

No significant difference was observed in the attachment patterns of the ADHD group and the healthy control group (Table 2). However, in the ADHD group, the scores on dismissing attachment of the children whose parents had ADHD were significantly higher than the scores of those whose parents did not have ADHD ($p=0.036$) (Table 3). In terms of other attachment patterns, no difference was found between the groups. The presence of ADHD in the mother or the father had no significant effect on the attachment pattern. No significant relation was found between parents' ASRS and

WURS scores and adolescents' A-RSQ scores in the ADHD and control groups.

Table 2. Comparison of ASRS and WURS scores of parents in ADHD and control groups.

	Mother			Father		
	ADHD (n=30)	Control (n=30)	P	ADHD (n=30)	Control (n=30)	P
ASRS	27±10.60	21.20±8.04	0.020	29.70±8.82	22.23±9.39	0.002
WURS	25.70±10.56	17.03±9.37	0.006	26.10±9.02	17.53±8.42	0.001

Discussion

In general, this study revealed no differences between the attachment patterns of adolescents with ADHD and healthy adolescents. The ASRS and WURS scores of the parents of the adolescents with ADHD were determined to be significantly higher than those of the control group. The scores on dismissing attachment pattern of the adolescents with ADHD whose parents had ADHD were significantly higher.

Table 3. Relationship Scales Questionnaire scores of ADHD and control groups.

Variables	ADHD (n=30)	Control (n=30)	P
Secure Attachment	4.06±1.17	4.08±1.12	0.942
Fearful Attachment	3.30±1.06	3.25±0.98	0.875
Preoccupied Attachment	3.80±1.20	3.48±1.08	0.276
Dismissing Attachment	4.09±0.97	4.01±0.68	0.711

No significant difference was found in the mean A-RSQ scores of the ADHD and the control groups in our study. This result is not consistent with the information in the literature that children with ADHD have a more insecure attachment type.²⁰⁻²² The reason for this may be that in our study, as distinct from the childhood studies, the attachment types of adolescents were evaluated. Attachment in adolescence may exhibit many differences from the other age groups. In adolescence, attachment relationships established with other individuals, especially peers, are added to the attachment relationships established with parents. This brings up the issue of changes in the quality of attachment relationships that the adolescents establish with their parents as well as new attachment relationships. Another reason for the inconsistency between our results and the literature may be related to our inability to retrospectively assess the childhood attachment patterns of the individuals who participated in our study. Further reasons might be the structure of the Turkish society, the low number of samplings and the difference in the measurement means.

In our study, the scores on dismissing attachment pattern were found to be significantly high in the ADHD group, in the adolescents whose parents had ADHD. It is known that there is a relation between parenting style and insecure attachment in

children.^{7,23} Coexistence of ADHD in parent and child is an important risk factor that may cause negativity in the child's development due to mutual negative communication in the family.^{24,25} The relationship of children with ADHD with their parents progress more negatively owing to their stressful, demanding, persistent and interfering personality.²⁶ This reduces the quality of caregiving to the child, may influence the parents' feeling of competence and self-confidence, and cause tension and anxiety in the family. Considering the difficulty that a parent with symptoms of ADHD will experience in exhibiting attitudes and manners such as calmness, perseverance, ability to set boundaries, non-impulsive behavior against problems that a child with ADHD requires, it can be predicted that the secure attachment process of the child will be negatively influenced.

Table 4. Effect of the presence of ADHD in parents of the ADHD group on the adolescents' attachment pattern.

	Diagnosis (n=7)	No diagnosis (n=53)	P
Secure Attachment	4.73±1.48	3.89±1.05	0.119
Fearful Attachment	3.20±0.90	3.32±1.11	0.818
Preoccupied Attachment	3.33±1.34	3.92±0.16	0.287
Dismissing Attachment	4.83±1.09	3.90±0.87	0.036

In our study, the mean ASRS and WURS scores of the parents in the ADHD group have been found to be significantly higher than those of the control group. Strong genetic transmission is known to exist in ADHD and in studies performed about children and parents with ADHD, it was demonstrated that genetic transmission in ADHD is at a ratio of 76%.^{27,28} In a large number of studies, ADHD symptoms were detected at a higher ratio in the families of children with ADHD compared to the control groups.²⁹ Also, it is reported that ADHD symptoms continuing until adulthood have a stronger genetic transmission.³⁰ On the basis of these symptoms, it is suggested that ongoing ADHD in adulthood may be of a familial subtype and genetic elements in these cases may play a greater role in etiology.³¹

Our study has various limitations. It does not reflect the society sufficiently due to the limitation of the sampling only to those patients who referred to one university clinic, the low number of sampling and the clinical orientation of the participants. Further, other factors that influence attachment such as temperament traits of the children, attachment patterns of the parents, parental attitudes and the characteristics concerning inheritance were ignored. There is a need for extensive series of studies where these factors will be considered. Examination of the presence of ADHD and other mental disorders in the parents of children with ADHD may contribute positively to the treatment of children.

Conclusion

In our study, we examined the attachment patterns of adolescents with ADHD and

determined that the attachment patterns of adolescents with ADHD and healthy adolescents were similar. We found that the incidence of ADHD in the parents of children with ADHD was higher compared to the healthy controls. We found that the children's attachment patterns were negatively affected by the presence of ADHD in their parents and that the risk of developing an insecure attachment pattern increased in such children.

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