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## Attachment SECURITY and Behavioral Problems of Middle Childhood Boys in Republic of KOREA

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### Abstract

*This study examined the relationship between attachment security and clinical behavioral problems in a sample of 155 middle childhood boys in Republic of Korea. We tested the following hypotheses: 1) attachment security is associated with internalizing problems in middle childhood boys and 2) attachment security is associated with externalizing problems in middle childhood boys. Semi-structured interview (Separation Anxiety Test) was applied to identify the attachment security, and K-CBCL was used to measure behavioral problems. Frequency analysis and chi-square test were conducted to identify clinically risky groups in behavioral problems and to investigate the association with attachment security.*

*The results of this study indicated that boys with insecure attachment type were more identified as a semi-clinical/clinical group in internalizing problems, but not in externalizing problems. These results were consistent with some previous studies which reported the relationship between attachment security and internalizing problems, but in contrast to other studies which suggested the association between attachment security and externalizing problems. Future studies are needed to further clarify the relationship between attachment security and externalizing problems of middle childhood boys in Republic of Korea. This study has following implications. First, we evaluated attachment security in middle childhood boys applying semi-structured attachment interview rather than self-report questionnaires to access the complexity and verbal and non-verbal expressions of attachment representations. Also, this study showed the relationship between attachment security and internalizing/externalizing problems in middle childhood boys who have been less investigated in previous studies. Finally, this study suggested that insecure attachment in middle childhood boys has clinical implication in internalizing problems.*

**[Keywords]** Attachment Security, Behavioral Problems, Middle Childhood, Boys, Republic of Korea

### 1. Introduction

Attachment refers to an emotional bond between a child and his/her caregiver[1]. The quality of attachment depends on the caregiver's availability and responsiveness to the child's needs. If parents are responsive and provide the child with support and comfort during distressing situation, the child can construct a secure base, which enables the child to trust adults and develop confidence in exploring the environment with positive representations of self and others. On the

other hand, parents who are dismissive or inconsistent of children's emotional reactions foster insecure attachment styles, resulting in the child's negative representations of self and others[2]. To this date, studies have consistently reported that secure attachment provides a healthy foundation for development, whereas insecure attachment is likely to be associated with difficulties in personality development and clinical symptoms such as internalizing and externalizing problems. The evidence suggests that children who have formed secure attachment to their caregivers

are less likely to experience clinical symptoms. Some studies found that secure attachment is linked to lower level of internalizing problems[3][4][5] and externalizing problems[6][7]. However, there is still a discrepancy between findings of the relationship between attachment security and behavioral problems[8]. This is partly attributable to different methods to assess attachment security and behavioral problems across studies. Especially, middle childhood has been largely ignored by attachment research even though middle childhood is an important period of development in that attachment is influenced by broader developmental context and provides the foundation of behavioral problems emerging in adolescence.

Previous studies have usually measured attachment security in middle childhood using self-report questionnaires. For example, one study measured attachment security with questionnaires reflecting children's perception of intimate relationships with their parents[9]. Other studies assessed attachment security through questionnaires composed of three subcategories; trust, communication, and alienation[10][11][12]. The attachment development in middle childhood, however, is identified as significant changes of attachment behavior and attachment representations. During this period, the goal of attachment system changes from proximity to the availability of attachment figure[13]. Children develop cognitive models of their relationship with attachment figure, thus the assessment of representations needs to focus on an individual's generalized and internalized model of attachment relationships. However, in spite of these changes, attachment figure continues to function both as safe havens in time of distress as well as secure bases that support a child's exploration[14][15].

The purpose of this study was to clarify the relationship between attachment security and behavioral problems in Korean middle childhood boys. We applied a semi-structured interview method to measure the complexity of children's attachment representations reflected in verbal and non-verbal expressions of attachment representations. We

used projective pictures, which activated children's attachment system, to approach conscious and unconscious emotions and thoughts reflecting attachment security during the interview.

We also aimed to identify semi-clinical/clinical groups in internalizing and externalizing problems and to investigate if insecure attachment type in middle childhood is more likely to have risks for psychopathology.

We tested the following hypotheses: 1) attachment security is associated with internalizing problems and 2) attachment security is associated with externalizing problems.

## 2. Methods

### 2.1. Participants

Participants were recruited from Seoul and Gyeonggi Province of Korea. We sent letters to elementary schools inviting boys to participate in this study. Two hundreds and eight boys in the third and fourth grade and their parents were participated. One hundred and fifty-five cases were finally selected for the analysis, except for 22 cases that did not respond to the CBCL and 31 cases that were not properly classified through Attachment Security Test. All of participants were confirmed to have no experience of separation from their mother due to divorce or bereavement. Boys' ages were ranged from 100 to 130 months, with an average age of 114.81 months( $SD = 7.79$ ).

Based on the attachment interviews, the subjects were divided into secure attachment type and insecure attachment type. We explored the demographic differences in each attachment type, and confirmed that there were no group difference in parents' education levels and social economic status reported by mothers.

The data used in this study belongs to the research project 'Neural plasticity of empathetic networks in insecurely attached children: The effects of brain-based intervention programs for children and parents' supported by National Research Foundation of Korea in

2014. This research project was initially designed to investigate the neural correlates of attachment security in middle childhood boys. For this reason, the research subjects were limited to all boys.

## 2.2. Measures

### 2.2.1. Attachment security

The modified version[16] of Separation Anxiety Test(SAT)[17][18] was used to evaluate attachment security in middle childhood boys. The SAT, a semi-structured interviewing system, was designed to activate children's attachment system through six pictures depicting separation situations from parents and to access their emotions and thoughts related to attachment figure and their relationships.

Boys were visited at home by a trained interviewer and interviewed in a quiet space. Interview process was recorded with the consent of the child and the mother in advance. Recordings in terms of verbal and non-verbal expressions such as intonations or pauses were transferred and coded, and used for analysis. The facial expressions and behaviors of the child during interview were also coded based on the interviewer's notes to reflect non-verbal expressions.

The content of interview and the notes recorded by researchers were analyzed according to the coding guideline[19]. Coding system concludes following nine scales; 1)emotional openness and vulnerability, 2)solution, 3)coherence of transcript, 4)anxiety, 5)dismissing/devaluing of attachment, 6)resistance/withholding, 7)displacement of feelings, 8)self-blame, and 9)preoccupied anger. Participants were divided into secure attachment type or insecure attachment type based on the score in each scale.

### 2.2.2. Behavioral problems

The Korean version of the Child Behavioral Check List(K-CBCL)[20] was used to measure behavioral problems. In this study, items for internalizing problems and externalizing problems were selectively used. Internalizing problems consist of anxiety/depression, withdrawn/depression, and somatic complaints.

Externalizing problems consist of delinquent behavior and aggressive behavior.

For the purpose of this study, participants were divided into non-clinical group and semi-clinical/clinical group in internalizing and externalizing problems. We considered T-scores of 60 and above as 'semi-clinical/clinical group', and the rest as 'non-clinical group' based on the guideline[20].

## 2.3. Statistical analysis

Statistical analyses were performed using IBM SPSS Statistics 20. Frequency analysis and chi-square test were used to analyze the difference in behavior problems according to attachment security.

## 3. Results

### 3.1. Attachment security and internalizing problems in middle childhood boys

As shown in <Table 1>, attachment security was significantly associated with clinical status on internalizing problems( $\chi^2 = 6.00, df = 1, p < .05$ ). In case of secure attachment type, there were 77 boys(85.6%) in non-clinical group and 13 boys(14.4%) in semi-clinical/clinical group. In insecure attachment type, 45 boys(69.2%) were in non-clinical group and 20 boys(30.8%) were in semi-clinical/clinical group. These results show that boys of insecure attachment type are more likely to be classified as semi-clinical/clinical group than boys of secure attachment type.

Chi-square test was conducted for each subcategory of internalizing problems; anxiety/depression, withdrawn/depression, and somatic symptoms. There was no significant group difference on clinical status according to attachment security.

### 3.2. Attachment security and externalizing problems in middle childhood boys

As shown in <Table 2>, attachment security tended to be associated with clinical status on externalizing problems that 16 boys out of 90(17.8%) were assigned to semi-clinical/clinical group in secure attachment type

while 14 boys out of 65(21.5%) in insecure attachment type, but the group difference was not significant.

Chi-square test was conducted for each subcategory of externalizing problems; delinquent behavior and aggressive behavior. There was no significant group difference on clinical status according to attachment security type.

**Table 1.** Attachment security and internalizing problems in middle childhood boys.

		Internalizing problems			$\chi^2$
		Non-clinical	Semi-clinical/ clinical	Total	
Secure attachment	Observed frequency	77	13	90	6.00*
	Expected frequency	68.5	21.5	90.0	
	%	85.6	14.4	100.0	
Insecure attachment	Observed frequency	45	20	65	
	Expected frequency	49.5	15.5	65.0	
	%	69.2	30.8	100.0	
Total	Observed frequency	122	33	155	
	Expected frequency	122.0	33.0	155.0	
	%	58.1	41.9	100.0	

Note: N = 155  
\*P < .05.

**Table 2.** Attachment security and externalizing problems in middle childhood boys.

		Externalizing problems			$\chi^2$
		Non-clinical	Semi-clinical/ clinical	Total	
Secure attachment	Observed frequency	74	16	90	0.34
	Expected frequency	72.6	17.4	90.0	
	%	82.2	17.8	100.0	
Insecure attachment	Observed frequency	51	14	65	
	Expected frequency	52.4	12.6	65.0	
	%	78.5	21.5	100.0	
Total	Observed frequency	125	30	155	
	Expected frequency	125.0	30.0	155.0	
	%	80.6	19.4	100.0	

Note: N = 155

#### 4. Discussion

The object of this study was to investigate whether insecure attachment in middle childhood boys is associated with clinical status on internalizing and externalizing problems. The

results indicated that attachment security is related to clinical status on internalizing problems in middle childhood boys. This result is consistent with previous studies reporting the association between attachment security and internalizing problems[9], depression[12], or emotional problems[11]. Establishing a secure relationship with responsive caregivers and sharing emotional experience with them support children's emotional regulation and communication skills. These abilities help children to control their own emotions and to cope with negative emotions[21][22]. Thus, boys with high attachment security are less likely to experience internalizing problems.

We found that boys of insecure attachment type are more likely to be identified semi-clinical/clinical group in externalizing problems, but the group difference was not significant in this study. Previous studies about the relationship between attachment security and externalizing problems have reported inconsistent findings. For example, one study[8] showed the relationship between attachment security and aggressive behavior was not significant. On the other hand, other studies reported that attachment security and externalizing problems were related[9][10][11][23]. One reason for inconsistent findings is that there exist various mediating factors between attachment security and externalizing problems such as maternal depression, psychopathology[24] or personal traits[8]. Therefore, the future studies are needed to clarify the effect of attachment security on externalizing problems.

This study has several limitations. First, the result from this study is not representative for the entire middle childhood as only boys were included. Future studies including girls are required, given that gender difference have been reported in behavior problems. Also, since the data was based on cross-sectional information, there is a limit to clearly describing the casual effect of attachment security on the clinical status in behavioral problems. Therefore, additional longitudinal studies are needed.

Despite these limitations, this study has significant implications. We measured attachment security in middle childhood boys using semi-structured interview method rather than self-report questionnaires to access the complexity of attachment representations and verbal and non-verbal expressions of attachment representations. Also, this study showed the relationship between attachment security and clinical status on internalizing and externalizing problems in middle childhood boys who were less examined in previous studies. Finally, this study suggests that insecure attachment type in middle childhood is a more influential risk factor for internalizing problems compared to externalizing problems.

## 5. References

### 5.1. Journal articles

- [2] Steal H & Steal M. Attachment and Psychoanalysis: Time for a Reunion. *Social Development*, 7(1), 92-119 (1998).
- [3] Bohlin G & Hagekull B & Rydell AM. Attachment and Social Functioning: A Longitudinal Study from Infancy to Middle Childhood. *Social Development*, 9(1), 24-39 (2000).
- [4] Easterbrooks MA & Abeles R. Windows to the Self in 8 Year Olds: Bridges to Attachment Representation and Behavioral Adjustment. *Attachment & Human Development*, 2(1), 85-106 (2000).
- [5] Harold GT & Shelton KH & Geoke Morey MC & Cummings EM. Marital Conflict Child Emotional Security about Family Relationships and Child Adjustment. *Social Development*, 13(3), 350-1376 (2004).
- [6] Davies PT & Cummings EM & Winter MA. Pathway between Profiles of Family Functioning Child Security in the Interparental Subsystem and Child Psychological Problems. *Development and Psychopathology*, 16(3), 525-550 (2004).
- [7] El-Sheikh M & Buckhalt JA. Parental Problem Drinking and Children's Adjustment: Attachment and Family Functioning as Moderators and Mediators of Risk. *Journal of Family Psychology*, 17(4), 510-520 (2003).

- [8] Baek HJ & Hwang HK. The Effects of Parents-related Variables and Self-related Variables on Children's Emotional and Behavioral Problems. *The Korean Journal of Developmental Psychology*, 19(3), 1-27 (2006).
- [9] Kang JH. Developmental Trajectories of Internalizing and Externalizing Problems in Late-childhood: The Effects of Children's Gender Perceived Academic Achievement, Parents Behaviors and Peer Relations. *The Korean Journal of Elementary Counseling*, 13(1), 155-173 (2014).
- [10] Choi ES & Jung SA. The Structural Relationship among Attachment of Children Emotional Identification and Expression Abilities Social Abilities and Behavioral Problems. *The Korean Journal of School Psychology*, 9(3), 443-464 (2012).
- [11] Chun EC & Lee JS. The Relationship between Children's Attachment to Mother Anger and Emotional Behavioral Problems. *Journal of Korean Management Association*, 28(6), 157-167 (2010).
- [12] Min HY. The Relationship between Mother Attachment and Depression: The Mediation Effect of Peer Attachment in School Aged Children. *Korean Journal of Human Ecology*, 21(5), 915-927 (2012).
- [14] Kerns KA Tomich PL & Kim P. Normative Trends in Children's Perceptions of Availability and Utilization of Attachment Figures in Middle Childhood. *Social Development*, 15(1), 1-22 (2006).
- [15] Vandeviver E & Braet C & Bosmans G. Under Which Conditions Do Early Adolescents Need Maternal Support? *Journal of Early Adolescence*, 35(2), 162-169 (2015).
- [18] Slough NM & Greenberg MT. Five Year Olds Representations of Separation from Parents: Responses from the Perspective of Self and Other. *New Direction for Child and Adolescent Development*, 48, 67-84 (1990).
- [21] Crittenden P. Quality of Attachment in the Preschool Years. *Developmental Psychology and Psychopathology*, 4, 209-241 (1992).
- [23] Fearon RP & Bakermans Kranenbug MJ & IJzendoorn MH & Lapsley AM & Roisman GI. The Significance of Insecure Attachment and Disorganization in the Development of Children's Externalizing Behavior: A Meta Analytic Study. *Child Development*, 81(2), 435-456 (2010).
- [24] Munson JA & McMahon RJ & Spieker SJ. Structure and Variability in the Developmental Trajectory of Children's Externalizing Problems: Impact of Infant Attachment Maternal Depressive Symptomatology and Child Sex. *Development and Psychopathology*, 13(2), 277-296 (2001).

## 5.2. Thesis degree

- [16] Choi EJ. An fMRI Study of Children's Neural Responses according to the Level of Attachment Security. Seoul National University, Doctoral Thesis (2014).

## 5.3. Books

- [1] Bowlby J. Attachment and Loss: Vol 2 Separation Anxiety and Anger. Basic Books (1973).
- [13] Bowlby J. Attachment and Loss: Vol 1 Attachment. Basic Books (1982).
- [17] Hansburg HG. Adolescent Separation Anxiety: A Method for the Study of Adolescent Separation Problems. C. C. Thomas (1972).
- [20] Oh KJ & Lee H & Hong KE & Ha EH. K-CBCL. Chung Ang Aptitude (1997).
- [22] Greenberg MT & Speltz ML. Attachment and ontogeny of Conduct Problems. In J Belsky & T Nezworsk Eds. Clinical Implications of Attachment. Lawrence Erlbaum Associates (1988).

## 5.4. Additional references

- [19] Resnick G. Measuring Attachment in Early Adolescence: A Manual for the Administration Coding and Interpretation of the Separation Anxiety. Rockville MD (1993).

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