Association of Inattention and Peer Relationships : Mediation by Aggression among Korean Adolescents

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1. Introduction

Peer relationships during adolescence are very important because adolescents with peer relationship problems are at increased risk of a variety of maladjustments, for example, school dropout, mental health problems, and delinquency. Previous studies revealed that inattentive children or adolescents have peer relationship difficulties [1-2]. Relatively little is known as to the processes between inattention and peer relationship, while the association has been well examined [1]. A variety of studies demonstrated that the symptoms of attention-deficit hyperactivity disorder (ADHD) are related to aggressive behavior [3-4], and aggression is one of robust predictors to peer problems [5]. These findings suggest that aggression may be an explanatory factor for the association between inattention and peer relationships. Therefore, this study examined the meditational effects of aggression between inattention and peer relationships among Korean adolescents to provide practical implications for prevention and intervention.

2. Methods

The sample used for this study was obtained from larger datasets, Grade 4 student panel of Korea Children and Youth Panel Survey (KCYPS). Grade 4 student panel survey was implemented over three years, from 2010 to 2012, and this study used Wave 3 (2012) data. The final samples were composed of 2,378 Grade 4 students. Among the 2,378 Grade 4 participants, 52.6% were male and 47.4% were female. The average age of the participants was 12.9 years at Wave 3. Inattention was measured using 7 items of a scale developed by Cho and Lim [6], and the Cronbach's alpha was high (.835). Aggression was measured using 6 items of a scale developed by Cho and Lim [6], and the Cronbach's alpha was also high (.836). Peer relationship was measured using 4 items developed by Min [7], and the Cronbach's alpha was acceptable (.708). In this study, a structural equation model, established based on the previous studies, was used to examine the relationships among inattention, aggression, and peer relationship. Structural equation modeling includes both developing a measurement model to define latent variables and establishing a structural (i.e., theoretical) model to specify the relationships between latent variables [8]. Thus the analysis was conducted in two steps. AMOS 20.0 was used in the structural equation modeling analyses and missing values were estimated using the Full Information Maximum Likelihood (FIML) approach for model estimation.

3. Results

First, the measurement model of this study was estimated using confirmatory factor analysis, as shown in Table 1.

[Table 1] Confirmatory factor analysis results

		B	β	S.E.	t
Inattention	→ inatt1	1.000	.631		
	→ inatt2	1.224***	.699	.041	29.690
	→ inatt3	1.437***	.871	.053	27.228
	→ inatt4	1.264***	.676	.054	23.569
Aggression	→ agg1	1.000	.816		
	→ agg2	.864***	.703	.025	34.789
	→ agg3	.716***	.555	.031	22.902
Peer relationship	→ peer1	1.000	.594		
	→ peer2	.798***	.390	.055	14.487
	→ peer3	1.238***	.628	.145	8.537
	→ peer4	1.599***	.798	.180	8.902
X^2(df; p)=212.464(33;.000) *TLI*=.960 *CFI*=.980 *RMSEA*=.048(.042, .054)					

Note: inatt1-inatt4 = indicators of inattention; agg1-agg3= indicators of aggression; peer1-peer3 = indicators of peer relationship; ***p<.001.

Inattention and peer relationship had four indicators, respectively. Aggression consisted of three indicators. Indicators of inattention and aggression were constructed using item-parceling. Results indicated that the Tucker-Lewis Index (TLI) of the model was .960, the Comparative Fit Index (CFI) was .980, and the Root-Mean Square Error of Approximation (RMSEA) was .048. These figures were determined to indicate a good fit, since both the TLI and CFI were greater than .90 [9]. Additionally, a RMSEA value less than .05 is considered a close fit [10]. Further, all factor loadings from each latent variable onto indicators were statistically significant (p<.001). Model fit indexes and individual parameters suggested a good fit of the model to the data. In the second step of the analysis, a structural model defining associations among inattention, aggression, and peer relationship was specified as shown in Figure 1. The TLI of the structural model was .947, the CFI was .970, and the RMSEA was .045. These model fit indexes all suggested a good fit of the structural model. Inattention had significant positive effects on aggression (p<.001), indicating that the higher the level of inattention, the higher the level of aggression. Aggression had significant negative effects on peer relationship (p<.001), indicating that more aggressive adolescents have difficulties in their peer relationships. Finally, we conducted the Sobel test to examine the statistical significance of the meditational effects of aggression between inattention and peer relationship, and the effects were significant (Z=-7.675, p<.001).

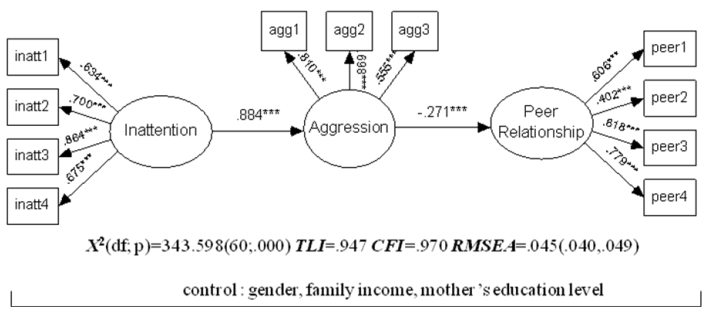

Figure 1. Mediation model

4. Conclusion

The results of this study showed the process that inattention causes peer problems; inattentive adolescents have difficulties in peer relationships due to high level of aggression. Therefore, it is suggested that aggression should be targeted to prevent peer problems and to promote peer relationships among inattentive adolescents. The study's key findings are noteworthy in that it expanded the knowledge base on the association between inattention and peer relationships among Korean adolescents.

5. References

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