

# The Effects of Self-esteem and Life Satisfaction on Problem Behaviors among Adolescents in Grandparent-Grandchild Families: The Mediating Effect of Social Support

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## Abstract

**Objectives:** The present study aimed to examine the structural relationships among the self-esteem, life satisfaction, social support, and problematic behaviors of adolescents who grow up in grandparent-grandchild families. To achieve the objective, a survey was conducted among 381 adolescents in these families, and the results were as follows. **Findings:** First, analysis showed positive correlations among subgroups of internalized problematic behaviors. In addition, these behaviors had positive correlations with teachers' support and friends' support but negative correlations with life satisfaction. Additionally, externalized problematic behaviors were negatively correlated with parents' support, teachers' support, self-esteem, and life satisfaction. Second, structural equation modeling analysis revealed that self-esteem had a significant impact on social support and externalized problematic behaviors; life satisfaction on social support; and social support on problematic behaviors. Third, it was also found that social support mediates the relationships between self-esteem and problematic behaviors and between life satisfaction and problematic behaviours. **Improvements:** With these findings, this study proposes a plan to reduce the problematic behaviors of adolescents who live in grandparent-grandchild families.

**Keywords:** Adolescents in Grandparent-Grandchild Families, Externalized Problematic Behaviors, Internalized Problematic Behaviors, Life Satisfaction, Self-Esteem, Social Support

## 1. Introduction

Since the 19th century, family structures have changed from large to nuclear families due to industrialization and urbanization. Subsequently, family functions have been weakened, causing family dissolution, and family dissolution has led to grandparent-grandchild and single-parent families. According to a 2008 report from Statistics Korea,

grandparent-grandchild households sharply increased in number, from 45,225 in 2000 to 58,101 in 2005 ( $\Delta$  12,876). The actual number of grandparent-grandchild households in 2010, which was measured in 2011, reached 119,294<sup>1</sup>.

Family dissolution results in tension among families and weakens family functions, which keeps everyone from fulfilling their roles in the family. The results can include

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negative effects on adolescents' well-being including reduced financial support, poor interpersonal relations, and other physical and psychological issues. Because fathers are legally designated as the official supporters in most grandparent-grandchild families, they are ineligible for national basic benefits and thus most of them are economically poor. Moreover, adolescents in grandparent-grandchild families experience a variety of emotional problems following unhealthy circumstances such as deaths, divorces, unemployment, parental discord, and generational conflicts with grandparents<sup>2</sup>. Furthermore, it has been reported that children in grandparent-grandchild families are outcasts in their peer groups and show high levels of depression<sup>3</sup>. Even teachers evaluate that children from broken families are more depressed than are children from intact families<sup>4</sup>. Studies that examined the long-term effects of broken families on adaptation among grandchildren reported that children who lived away from their parents experienced internalized problems<sup>5</sup> such as depression and anxiety and externalized problems such as aggression, deviation, and delinquency; these adolescents were also found to have low cognitive and social skills and low self-esteem<sup>6</sup>. Although these results allow us to understand that adolescents' problematic behaviors are associated with social support from their interpersonal relationships, they are not sufficient to empirically support cases in Korea.

However, there are some studies<sup>7-9</sup> regarding children in grandparent-grandchild families. For example, some studies<sup>8,9</sup> have investigated the problematic behaviors of elementary school students in their relationships with their grandparents, and a different study<sup>2</sup> also investigated the internalized problematic behaviors of elementary school students but mainly focusing on their depression and anxiety. Therefore, it is fair to say that there has been interest in the internalized and externalized problematic behaviors of adolescents in grandparent-grandchild families. However, no studies have examined the mediating effect of social support between problematic behaviors and self-esteem. In this respect, the present study intended to examine the relationships between the problematic behaviors and self-esteem of middle and high school students who lived in grandparent-grand-

child families and their social support and to verify the intervening role of social support in their problematic behaviors.

To achieve the objective, the present study designed the research questions as follows: First, how are the self-esteem, life satisfaction, social support, and problematic behaviors of adolescents in grandparent-grandchild families related to each other? Second, what structural relationships exist among the self-esteem, life satisfaction, social support, and problematic behaviors of adolescents in grandparent-grandchild families? Third, does social support mediate among the self-esteem, life satisfaction and problematic behaviors of adolescents in grandparent-grandchild families?

## 2. Method

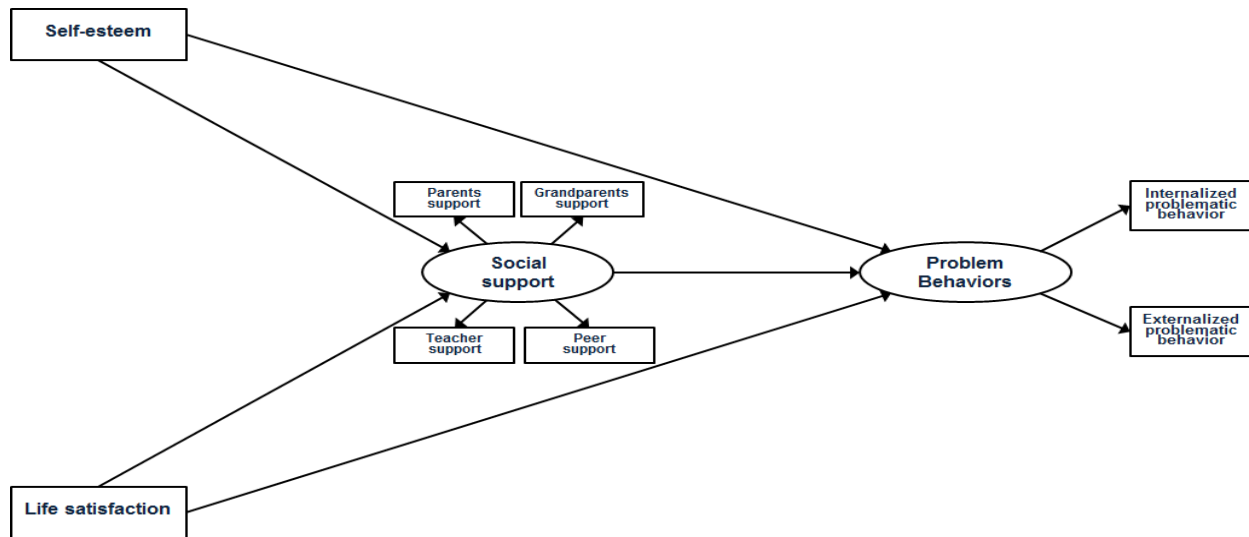
### 2.1 Research Model

Precedent studies were reviewed in order to determine the effects of self-esteem and life satisfaction on adolescents' problematic behaviors and to design a model that would elucidate the mediating relationship among those variables. Figure 1 showed the research model for this study.

### 2.2 Research Subjects and Data Collection

This study collected data from a total of 381 adolescents who attended middle or high school, which had lived with their grandparents for more than 6 months, and for whom their grandparents were their primary caregivers. The study areas were City I, Province K, and Southern Province C. Because it was difficult to identify adolescents in grandparent-grandchild families, this study used schoolteachers, social welfare workers, and directors of health centers in each city and county to distribute and collect questionnaires.

The samples consisted of a total of 381, of which 50.4% were female and 49.6% were male. Over three-quarters of the respondents, 68.5%, were middle school students between ages 14 and 16, and 31.5% were high school students between ages 17 and 19. Of the respon-



**Figure 1.** Research model.

dents, 36.4% lived in urban areas, and 63.6% lived in rural areas. By school records, 28.3% of the students were in the top 10 in their classes; 47.9% were in the top 11-25; and 23.8% were ranked 26-45.

A large portion of the respondents (37.4%) answered that they were satisfied with their lives; in particular, 39.9% were satisfied with their allowances, the item for which they reported greatest satisfaction.

By living arrangements, 80.3% of the students lived with their grandparents on their father's side, and 19.7% lived with their maternal grandparents. The children lived with their grandparents because of parental divorce, separation, or abandonment (57.2%)- the most common response- followed by parents' having to work or study elsewhere (29.7%), parental death (11.0%), and parental illness or disease (2.1%).

Over three-quarters of the grandparents, 76.9% did not work, and 23.1% did work. Approximately a third, 31.2%, of respondents saw their parents every day or once or twice a month, followed by never (29.8%) and once every 3 months to 3 years (27.0%).

## 2.3 Research Instruments

### 2.3.1 Adolescents' Problematic Behaviors

To measure adolescents' problematic behaviors, this study employed the Korean Youth Self-Report (K-YSR) scale from the Korean Child Behavior Checklist (K-CBCL) for children and adolescents, which<sup>10</sup> translated into Korean, and the standardized Child Behavior Checklist (CBCL) developed by Achenbach and Edelbrock<sup>11</sup>.

The K-YSR assesses internalized and externalized problematic behaviors that have been present for 6 months; questions are designed to measure children's problematic behaviors using items such as "I break others' things," and "I often fight." Each question is rated on a 5-point scale (1 point = not at all to 5 points = absolutely agree).

To construct the scale, the study used principal factor analysis with varimax rotation to extract factors. As a result, 4 out of 10 questions regarding internalized problematic behaviors were dropped for low reliability; for the remaining 6 questions, Cronbach's  $\alpha = 0.613$ .

Additionally, 7 of 12 questions regarding externalized problematic behaviors were dropped for low reliability, and for the remaining 5 questions, Cronbach's  $\alpha = 0.753$ .

### 2.3.2 Social Support

To measure social support, this study chose a scale that was developed by<sup>12</sup> and modified by<sup>13</sup>, although the items were reworded to suit the language abilities of middle and high school students, such as, "He or she makes me feel that I am loved" and "I can open up to him or her when I have a problem."

Each question assessed 4 types of social support (parent, grandparent, friend, and teacher) on a 5-point Likert scale (1 point = not at all to 5 points = absolutely agree).

For the 4 types of support, the Cronbach's  $\alpha$  results were as follows: 0.909 for parents' support; 0.900 for grandparents' support; 0.901 for friends' support; and 0.899 for teachers' support. All questions showed relatively high reliability.

### 2.3.3 Self-Esteem

The Rosenberg Self-esteem Scale (RSES)<sup>14</sup> was used to measure self-esteem. This scale consists of 10 questions (5 positive and 5 negative) such as, "I think I am of value like others," and "I have a good nature." For the present study, 1 question was dropped for low reliability, and the remaining 9 were answered on a 5-point Likert scale (1 point = never to 5 points = always). A higher score indi-

cates higher self-esteem, and the Cronbach's  $\alpha$  of the questions was found to be 0.827.

### 2.3.4 Life Satisfaction

Life satisfaction was subjectively measured on using a 5-point scale from 1 point = very satisfied to 5 points = very unsatisfied.

## 2.4 Data Analysis

The collected data were analyzed with SPSS Win. 21.0 and AMOS 21 for the descriptive statistics, correlation analysis, and structural equation modeling.

## 3. Results

### 3.1 Correlation among Variables and Descriptive Statistics

To examine the correlations among the variables, Pearson's correlation analysis was conducted, and Table 1 shows the results. There were positive correlations between internalized and externalized problematic behaviors ( $r = 0.28$ ), and internalized problematic behaviors were also positively correlated with teachers' ( $r = 0.13$ ) and friends' ( $r = 0.12$ ) support. In addition, externalized problematic behaviors had negative correlations with teachers' support ( $r = -0.20$ ), self-esteem ( $-0.38$ ), and life satisfaction ( $-0.21$ ).

**Table 1.** Correlation analysis and descriptive statistics

	1	2	3	4	5	6	7	8
1	1							
2	0.28**	1						
3	0.01	-0.29**	1					
4	-0.10	-0.19**	0.60**	1				
5	0.13*	-0.20**	0.46**	0.50**	1			

Table 1 Continued

6	0.12*	-0.08	0.39**	0.43**	0.40**	1		
7	-0.07	-0.38**	0.44**	0.40**	0.33**	0.25**	1	1
8	-0.15**	-0.21**	0.33**	0.33**	0.22**	0.11*	0.35**	1
Mean	2.71	1.93	3.25	3.25	3.05	3.34	3.34	3.07
SD	0.64	0.69	0.93	0.87	0.81	0.84	0.68	1.03
Skewness	-0.12	0.65	-0.20	-0.18	-0.36	-0.29	0.15	-0.36
Kurtosis	-0.12	0.27	-0.36	0.05	0.27	0.16	-0.30	-0.47

1. Internalized problematic behavior, 2. Externalized problematic behavior, 3. Parents support, 4. Grandparents support, 5. Teacher support, 6. Peer support, 7. Life satisfaction

\*  $p < 0.05$ , \*\*  $p < 0.01$

The means of the variables except for internalized and externalized problematic behaviors exceeded 3; the mean for internalized problematic behaviors was 2.71, and that for externalized behaviors was 1.93.

The skewness of all absolute values was lower than 3, and kurtosis was lower than 7, which satisfied the requirements of normal distribution<sup>15</sup>.

### 3.2 Validating the Modified Model

To verify the designed research model, overall confirmatory factor analysis (to analyze measurement model), convergent validity testing, and research model analysis were conducted. The goodness of fit of the measurement model was set to no significance in  $\chi^2$ . The Tucker-Lewis Index (TLI) and the Comparative Fit Index (CFI) were above 0.9, and the Root Mean Square Error Of Approximation (RMSEA) was below 0.1<sup>16</sup>. The criteria for the model's convergent validity were set to standardized

factor loadings above 0.5; statistically significant Z values; and average variance extracted and concept reliability above 0.5 and 0.7, respectively<sup>17</sup>. The result of overall confirmatory factor analysis showed that the standardized regression coefficient of internalized problematic behaviors was lower than 0.5, and thus it was deleted. The model fit testing showed no significant paths between life satisfactions and externalized problematic behaviors, and thus that path was also deleted. Because the model did not meet goodness of fit requirements, the model was partially modified with modification indices. In other words, modification was attempted to connect the possible covariance paths between the error terms to theoretically explain the error variances with modified index values that exceeded 10<sup>18</sup>.

As seen in Table 2, the goodness of fit values for the modified model was:  $\chi^2 = 15.598$  (df = 7); TLI = 0.962; CFI = 0.982; and RMSEA = 0.057. All of these values showed

**Table 2.** The Goodness of fit indices for the modified model

Classification	$\chi^2$	df	TLI	CFI	RMSEA
Modified model	15.598*	7	0.962	0.982	0.057
*p<0.05					

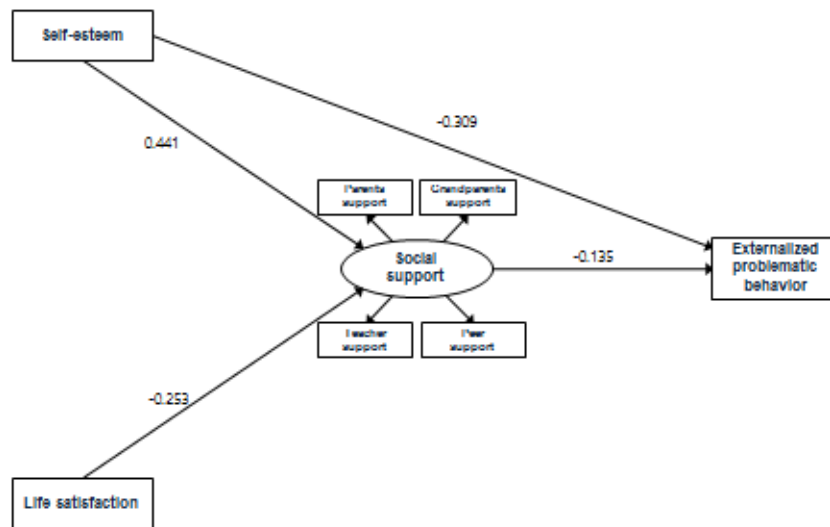
**Table 3.** Path of modified model

Path between variables			B	$\beta$	S.E	t
Self-esteem	→	Social support	0.272	0.441	0.042	6.435***
		Externalized problematic behavior	-0.315	-0.309	0.060	-5.269***
Life satisfaction	→	Social support	-0.103	-0.253	0.110	-2.011*
Social support	→	Externalized problematic behavior	-0.222	-0.135	0.033	5.080***
*p<0.05, ***p<0.001						

considerably better goodness of fit compared with the original research model. Accordingly, this study adopted the modified model as the final model. The modified model and each of the path coefficients are shown in Figure 2 and Table 3, respectively, and the results of testing each path are as follows.

Self-esteem had an impact on social support ( $\beta = 0.441$ ,  $p<0.001$ ) and on externalized problematic behav-

iors ( $\beta = -0.309$ ,  $p<0.001$ ), and life satisfaction had an impact on social support ( $\beta = -0.203$ ,  $p<0.05$ ); social support had a significant impact on externalized problematic behaviors ( $\beta = -0.153$ ,  $p<0.001$ ). However, social support did not have impact on internalized problematic behaviors unlike in the research model.



**Figure 2.** Modified model.

### 3.3 Verifying the Mediating Roles

This study used bootstrapping to analyze the mediating effects of social support between self-esteem and problematic behaviors among adolescents who lived in

grandparent-grandchild families and the results are summarized in Table 4. The findings confirm that self-esteem indirectly and partially affected problematic behaviors because there was no 0 at the upper limit (-0.283, -0.425) at the 95% confidence level. In addition, life satisfaction

**Table 4.** The mediating effects of social support between self-esteem and problematic behaviors

Path					Unstandardized estimate	Standardized estimate	p
Self-esteem	→	Social support	→	Externalized problematic behavior	-0.060	-0.059	0.019 <sup>*</sup>
Life satisfaction	→	Social support	→	Externalized problematic behavior	0.023	0.034	0.046 <sup>*</sup>
*p<0.05							



indirectly but fully affected the problematic behaviors because there was no 0 at the upper limit (-0.283, -0.425) at the 95% confidence level. This result indicates that self-esteem and life satisfaction had direct and indirect effects on the adolescents' problematic behaviors.

## 4. Discussion

The present study attempted to examine the structural relationships among the self-esteem, life satisfaction, social support, and problematic behaviors of 381 adolescents who were living in grandparent-grandchild families. The study results and suggested discussion follow.

First, there were positive correlations among the internalized problematic behaviors. These behaviors were positively correlated with support from teachers and friends but negatively related to life satisfaction. In addition, externalized problematic behaviors correlated negatively with teachers' support, self-esteem, and life satisfaction. These results were along the same lines as those from a study<sup>2</sup> that reported that children who lived with their grandparents due to their parents' divorce had more severe depression than did children who lived with their grandparent(s) for other reasons and from a different study<sup>19</sup> that found that teachers' support for adolescents who lived in grandparent-grandchild families was more of a stigma than a support for them. Second, structural equation modeling showed that self-esteem had effects on social support and externalized problematic behaviors and that life satisfaction had a significant impact on externalized problematic behaviors. This result is similar to the findings from studies<sup>2,20</sup> that found more problematic behaviors among persons who were less satisfied with their lives. Third, social support had an indirect impact on the relationship between self-esteem and life satisfaction and problematic behaviors. That is, it was confirmed that social support is a mediator. Accordingly, social support appears to have an important role in reducing problematic behaviors among adolescents who live in grandparent-grandchild families.

In conclusion, it is necessary to reinforce social support as well as self-esteem and life satisfaction in order to reduce the externalized problematic behaviors of ado-

lescents who live in grandparent-grandchild families. The government should develop programs to improve life satisfaction in grandparent-grandchild families and to help the grandparents improve the adolescents' self-esteem and social support. Furthermore, these 3 subjects should be integrated in order to effectively reduce the teens' externalized problematic behaviors.

This research has limitations regarding the research areas and the sample, and thus it is too early to generalize the study findings. In addition, there could be more important variables besides social support and self-esteem in the relationships between adolescents' problematic behaviors and their living in grandparent-grandchild families. Therefore, follow-up research is necessary. In particular, longitudinal studies with time tracking for adolescents in grandparent-grandchild families would be very effective for determining the fundamental cause of such problems.

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